CR-IR 362 Service Manual

Installation (IN)

Control Sheet

Issue date	Revision number	Reason	Pages affected
08.25.2003	01	New release (FM4098)	All pages
10.10.2003	02	Corrections (FM4160)	13, 23-31, Appx IN-2, 13-18
02.20.2004	03	Corrections (FM4181)	1, 2, 21-35 , Appx IN-3, 8, 18
11.15.2004	04	Corrections (FM4425)	2, 4-31, Appx IN-19, 20
05.10.2005	05	Corrections (FM4610)	Appx IN-8
02.19.2007	07	Change of document number, corrections (FM5097)	All pages
09.30.2008	08	Revision (FM5340)	8, 9, 28-39
09.30.2009	09E	Revision (FM5539)	4, 8-47, Appx IN-14, 19

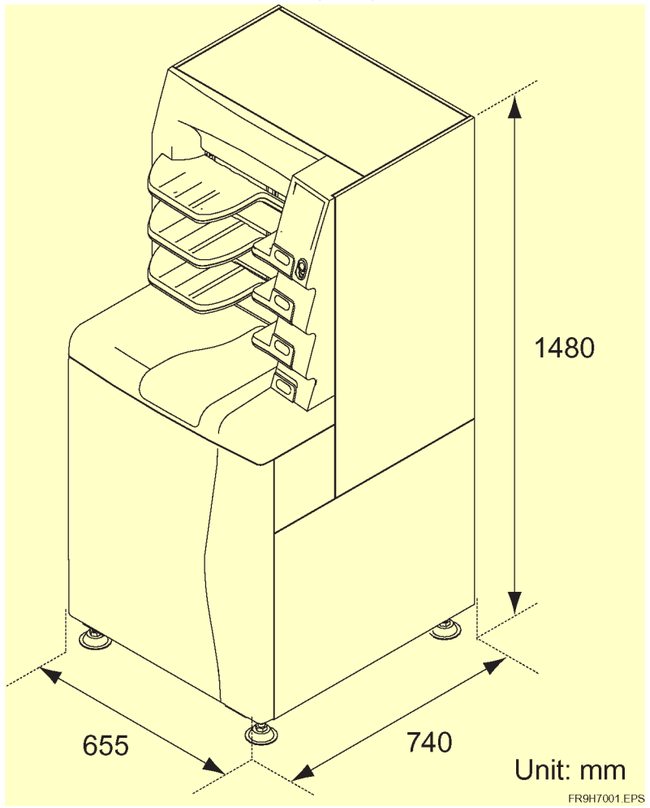
1. Specifications of Machine

■ Product Code

CR-IR 362

■ Dimensions

W655 × D740 × H1480 (mm)



■ Weight

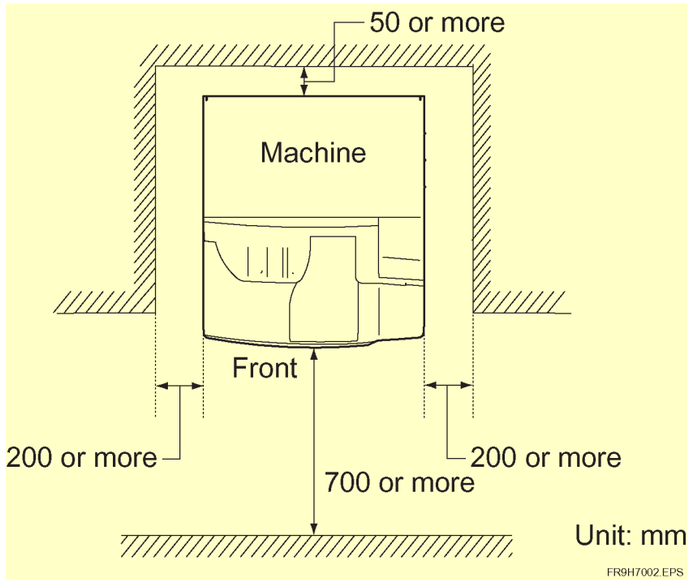
285 kg approx.

■ Means for Moving and Fixing the Machine

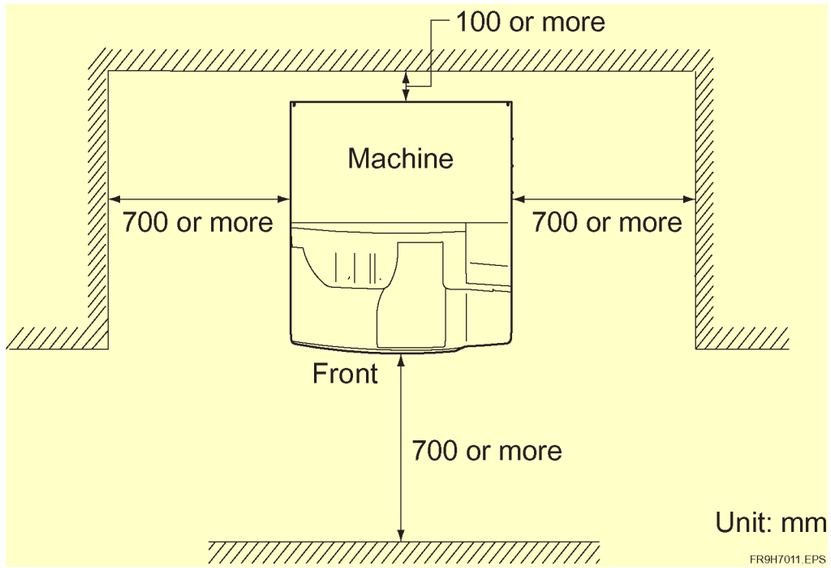
Moving : Double-wheel caster (variable-direction/no-brake) x4
Fixing : - Adjustable foot x4
- Machine retainer x2

■ Installation Space

● For fixing by adjustable feet

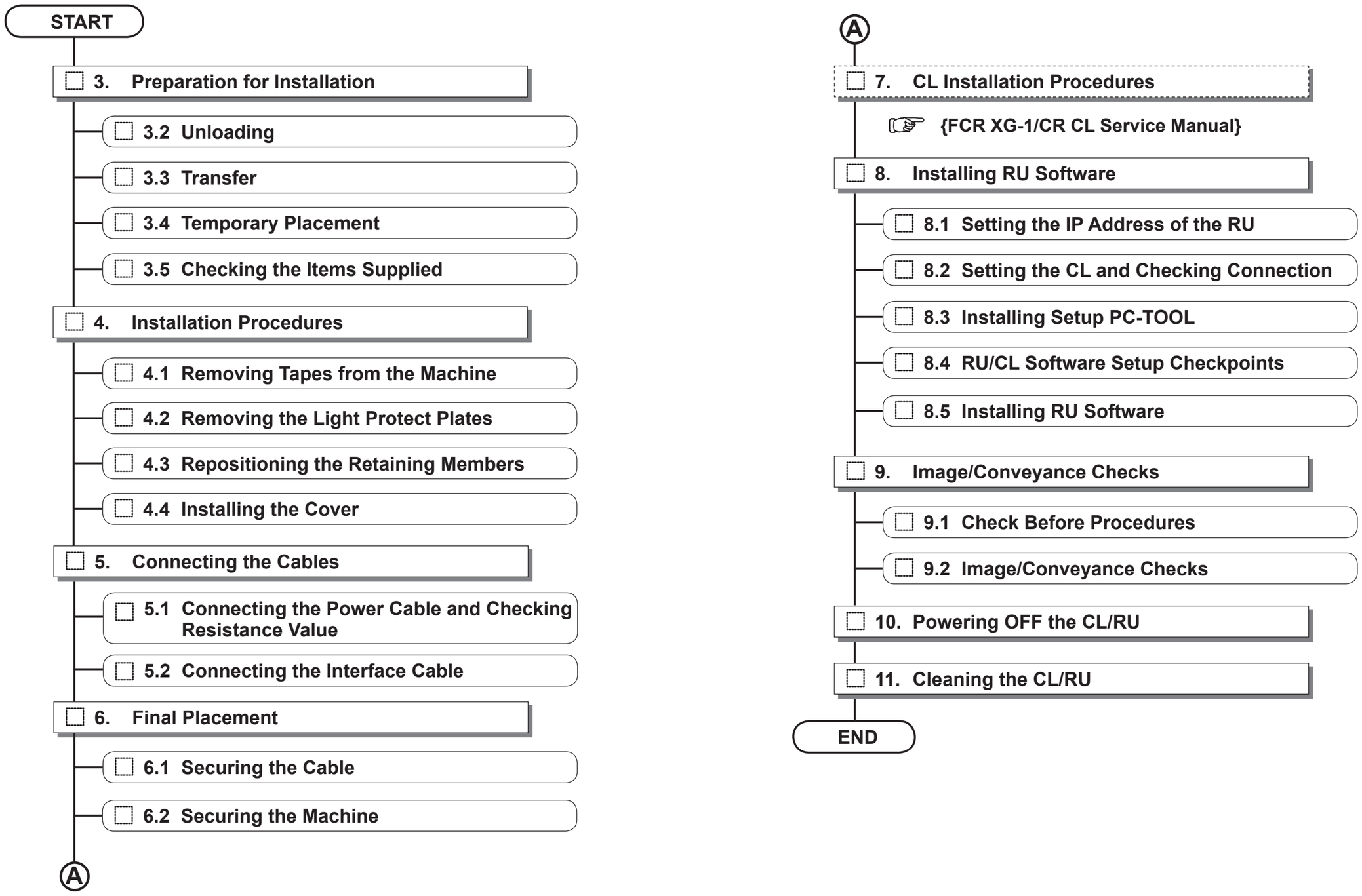


● For fixing by machine retainers



2. Installation Work Flowchart

■ Workflow for First-Time Installation


START
3. Preparation for Installation
3.2 Unloading
3.3 Transfer
3.4 Temporary Placement
3.5 Checking the Items Supplied
4. Installation Procedures
4.1 Removing Tapes from the Machine
4.2 Removing the Light Protect Plates
4.3 Repositioning the Retaining Members
4.4 Installing the Cover
5. Connecting the Cables
5.1 Connecting the Power Cable and Checking Resistance Value
5.2 Connecting the Interface Cable
6. Final Placement
6.1 Securing the Cable
6.2 Securing the Machine
A
A
7. CL Installation Procedures
{FCR XG-1/CR CL Service Manual}
8. Installing RU Software
8.1 Setting the IP Address of the RU
8.2 Setting the CL and Checking Connection
8.3 Installing Setup PC-TOOL
8.4 RU/CL Software Setup Checkpoints
8.5 Installing RU Software
9. Image/Conveyance Checks
9.1 Check Before Procedures
9.2 Image/Conveyance Checks
10. Powering OFF the CL/RU
11. Cleaning the CL/RU
END

3. Preparation for Installation

3.1 Precautions Regarding Installation

The place where the machine is to be installed needs to meet the criteria set forth in "Getting Started" and "3.1.1 Installation Site Requirements. "Preinstallation procedures should be performed beforehand for necessary construction work, electrical work, and air-conditioning system installation.

3.1.1 Installation Site Requirements

Avoid the following installation sites:

- Places where the temperature changes drastically.
- Places near heat sources such as heaters.
- Places where water leakage or equipment submersion may occur.
- Places where corrosive gas may be generated.
- Dusty places.
- Places where the machine is subject to constant or excessive vibration or shock.
- Places that are exposed to direct sunlight.
- Places that are exposed to X-rays while the machine is processing.
  Make sure that the machine will never be exposed to direct and scattered X-rays while the machine is processing.
  The size and position of the X-ray shields should be such that the machine is completely shielded to avoid exposure of direct and scattered X-rays to the machine.

● When installed in the patient environment

In the room where the machine is to be installed, the hospital-grade grounding terminal and outlet should be provided.
The installation place should be within reach of the cable of the patient environment support cable kit from the hospital-grade grounding terminal and outlet.

● When installed in other than the patient environment

Make sure that persons other than routine operators of the machine will not touch the machine inadvertently.

3.1.2 Precautions on Patient Environment

■ Additional Protective Grounding

If the RU is installed in the patient environment with the connected equipment in the non-medically used room, the additional protective grounding will be required.
Definitions of "patient environment", "medically-used room", and "non-medically used room" are given below.

● Patient Environment

Patient environment is the area for the patient to receive medical procedures (treatment, tests, diagnosis, monitoring).It is the space measuring 2.5 m in all four directions and 2.5 m in height from the area of the patient's body.
It excludes the space traveled by the patient to reach the medically-used room.

● Medically-Used Room

Room equipped with protective grounding (medical use outlet or medical use grounding terminal) implemented by the medical grounding method. The protective grounding inside the medically-used room is equipotential, and the protective grounding of this medically-used room is equipotential to that in the other medically-used room.
Generally, a portion of the medically-used room is the patient environment.

● Non-Medically Used Room

Areas outside the medically-used room are considered the non-medically used room.

3.1.3 Handling Precautions for Printed Circuit Boards and Optical Unit

When servicing a board or optical unit, use a wristband to ground your body.
If you body is not grounded, the electrostatic buildup on your body may damage the electronic parts.

3.1.4 Precautions for System Connection

"Accessory equipment connected to be the analog and digital interfaces must be certified according to the respective IEC Standards. Furthermore all configurations shall comply with the medical system standard, IEC60601-1-1. Everyone who connects additional equipment configures a medical system, and is therefore responsible that the system complies with the requirements of IEC60601-1-1. If in doubt consult with the your local technical service representative."

3.2 Unloading

⚠ CAUTIONS

- ***When unloading the machine, two persons should always cooperate to do so.***
- ***Before unloading the machine, secure a proper machine transfer route.***

3.2.1 Unloading (#20001 or Later)

◇ *REFERENCE* ◇

- *Before unloading the machine, together with the carrier pallet, from the load-carrying platform of the truck, make sure that there is enough space (2700 mm or more) on the rear side of the machine.*
- The specifications of the crate have changed for machines of #20690 or later.

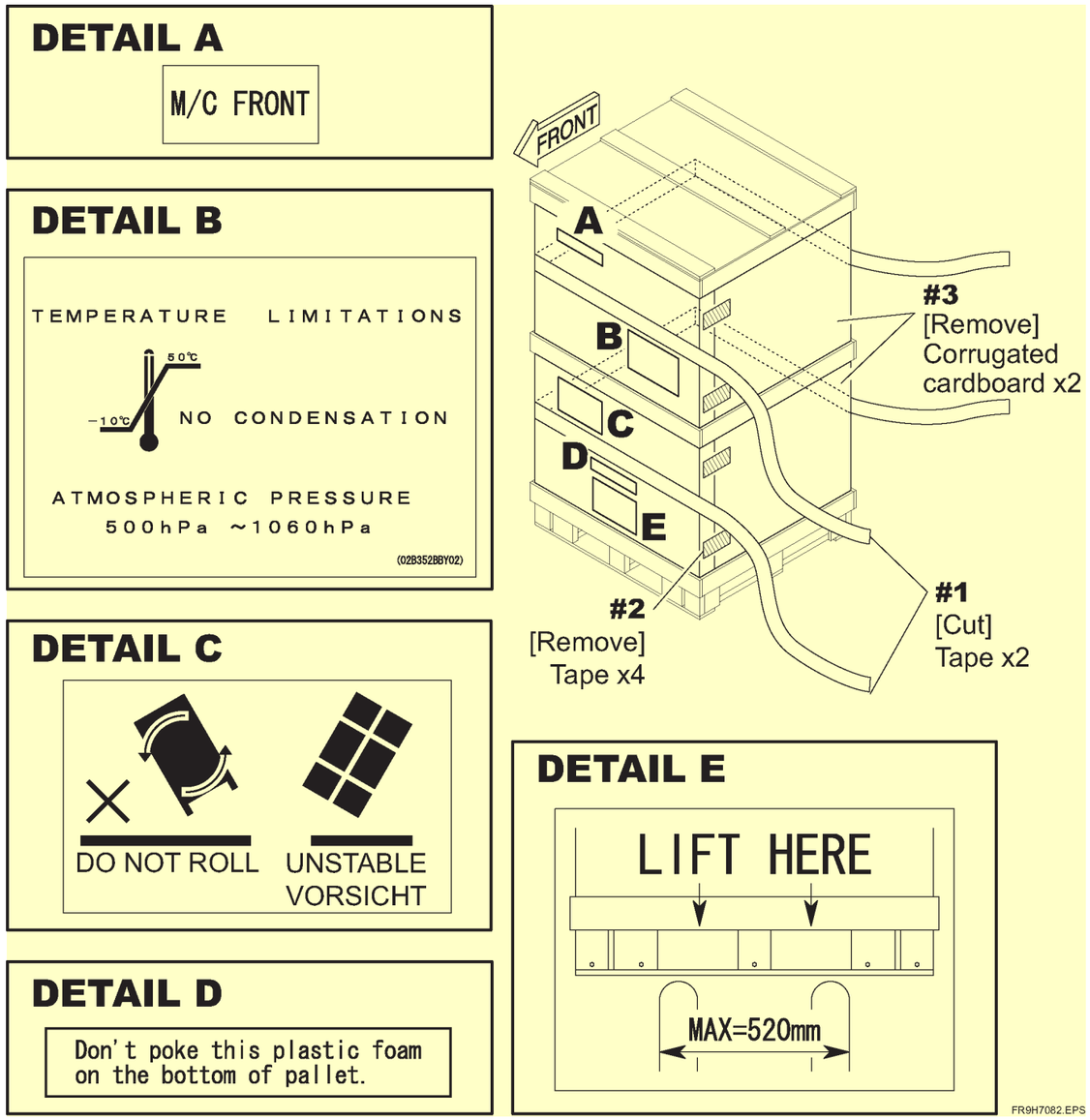
The changes are as follows:

1. *The protective plates and the lift insertion instruction labels are added to the front and rear faces on the lower part of the crate.*
2. *The PP band which retains wooden material of the carrier pallet with the shock absorber is changed to a cable member and the retaining location is changed.*
3. *Wooden materials are added to four corners inside the crate.*

When you see the detail of changes, refer to "Appendix 5. Changes in the Packaging Specifications".

☞ *{IN: Appendix 5._Changes in the Packaging Specifications}*

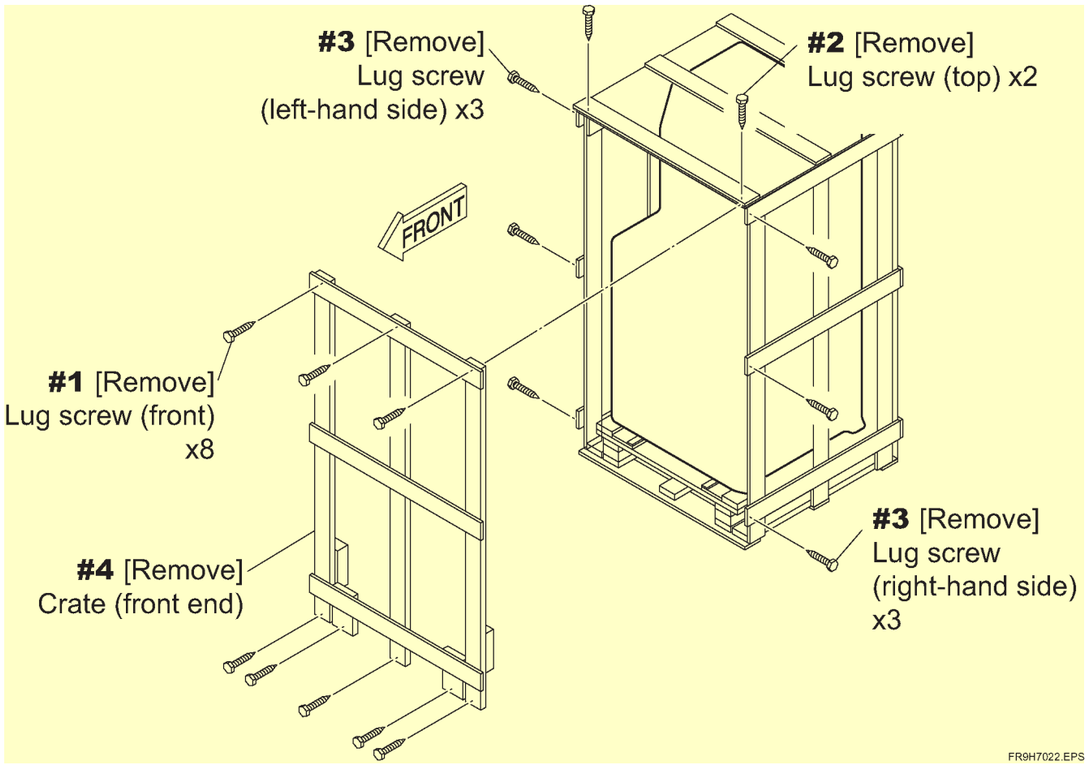
1. **Move down the machine together with the carrier pallet from the load-carrying platform of the truck.**
2. **Remove the corrugated cardboards.**



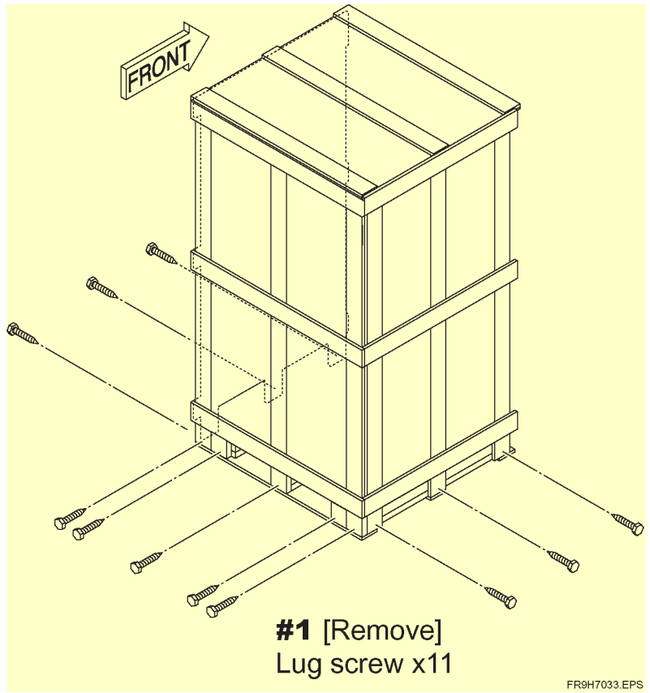
3. **Remove the front end of the crate.**

◆ ***NOTES*** ◆

- *The six lug screws located on the front should be removed first. Otherwise, the crate may topple down, causing you injury.*
- *The removed crate should be moved away to an unobstructive place.*



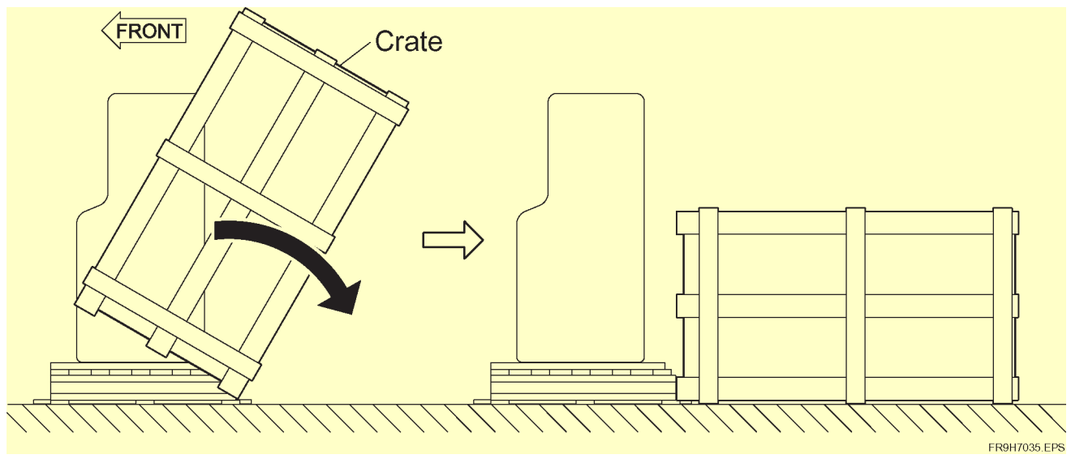
4. **Remove the screws from the crate.**



5. **Incline the crate to take it out.**

⚠ ***CAUTION***

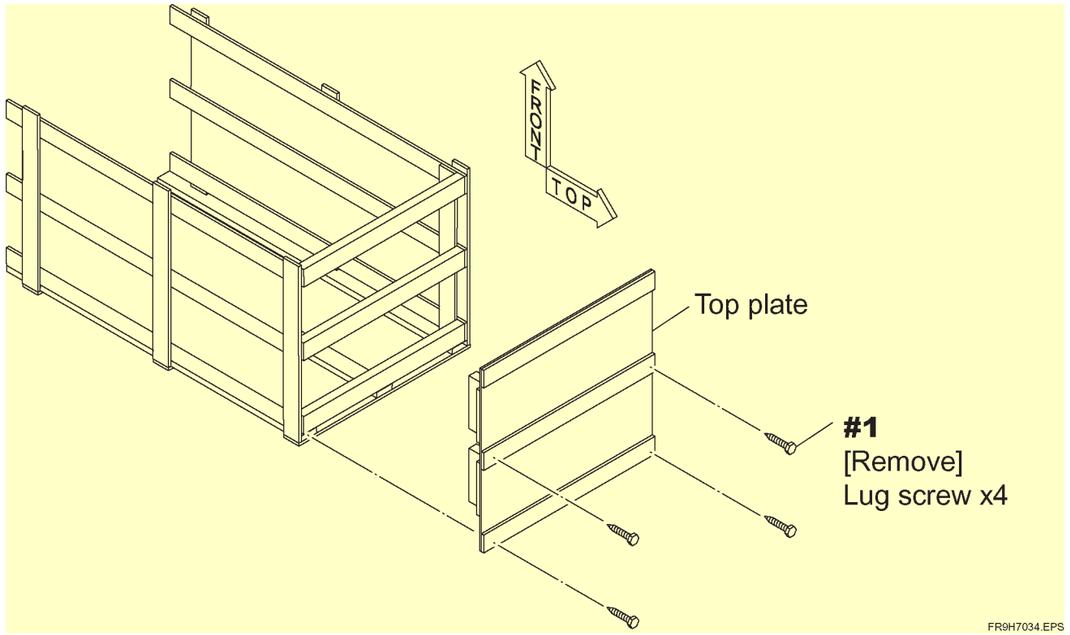
When removing the crate, incline the crate to take it out. If you try to move the crate, it might hit the machine, thereby damaging the machine.



6. **Remove the top plate from the crate.**

CAUTION

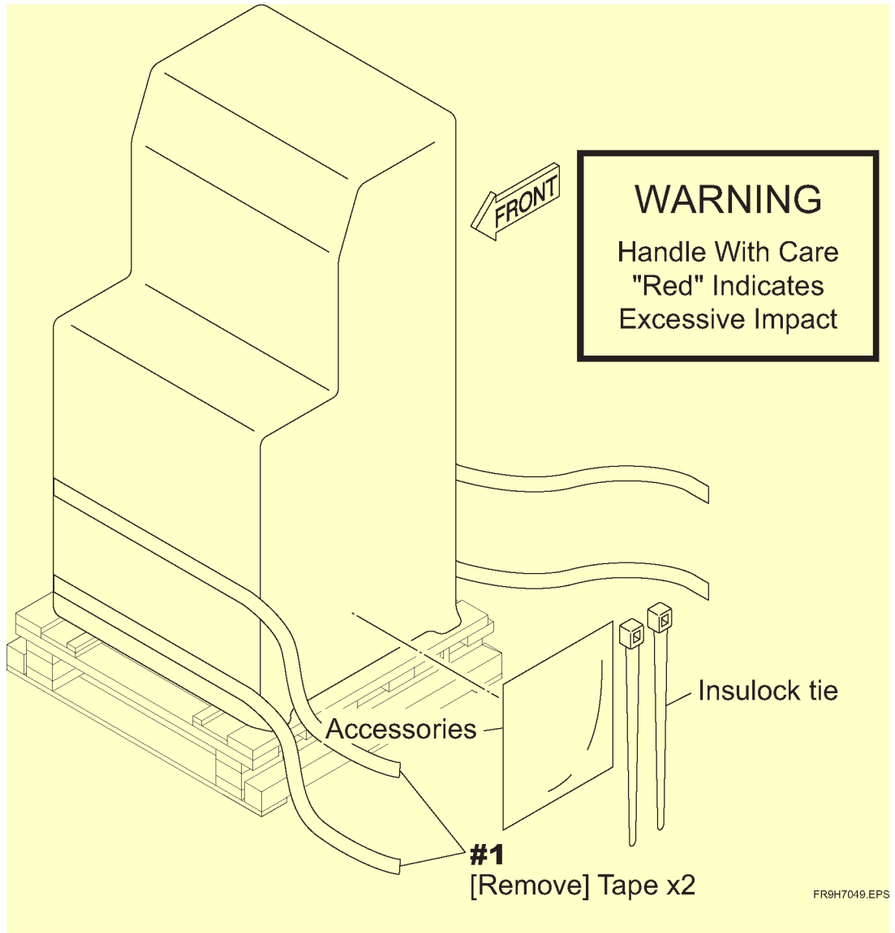
The top plate should not be disassembled, because it will be used when lowering the machine from the carrier pallet.



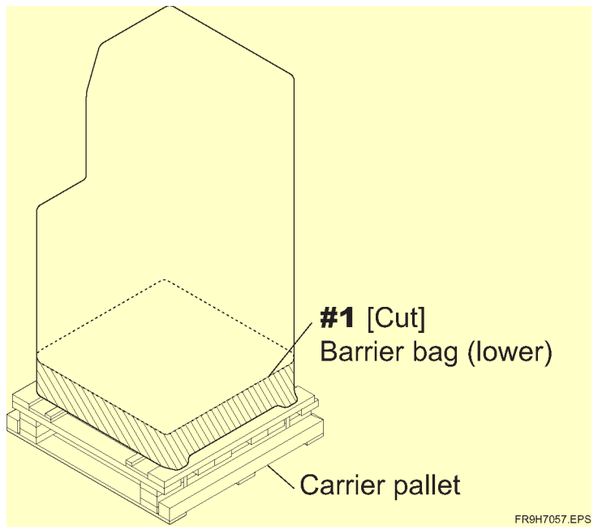
◇ *REFERENCES* ◇

- *After the top plate is removed, break up the crate and put the resulting pieces together for conveyance.*
- *Because the crate is assembled with nails, hit it with a hammer or the like from inside to break up the crate.*
- *Use care not to get injured by protruding nails when breaking up the crate.*

7. **Remove the accessories-containing bug.**



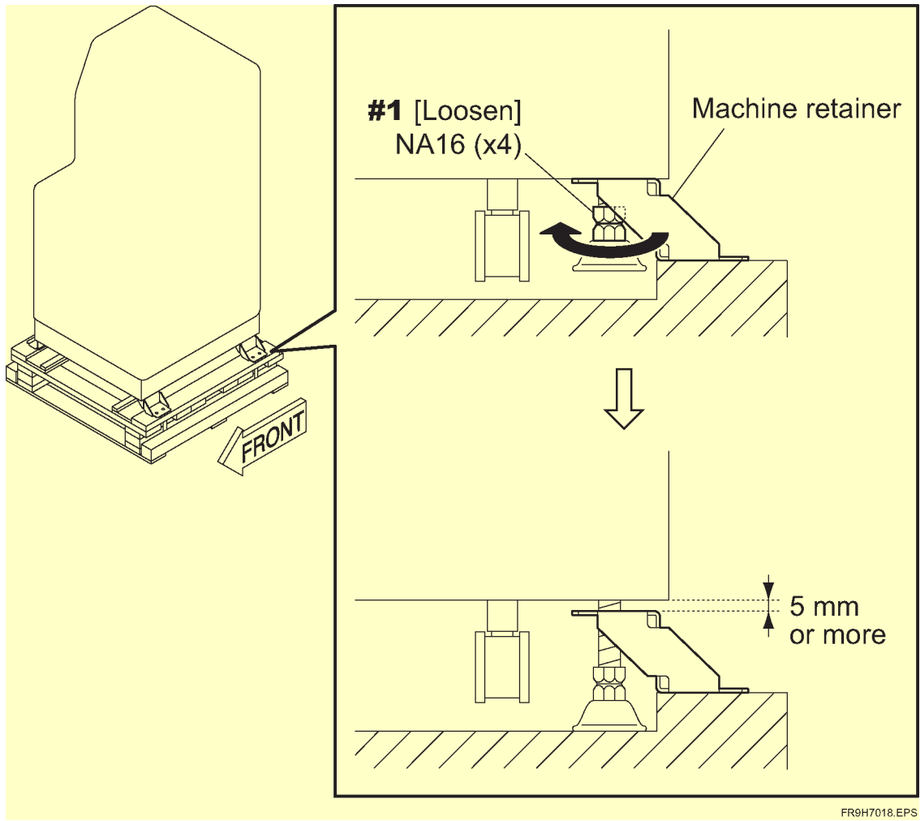
8. **Remove the lower portion of the barrier bag that protects the machine.**



9. **Lower the adjustable feet bolts to lift up the machine.**

CAUTION

Unless the machine is lifted up by the adjustable feet, the machine retainers could not be removed.

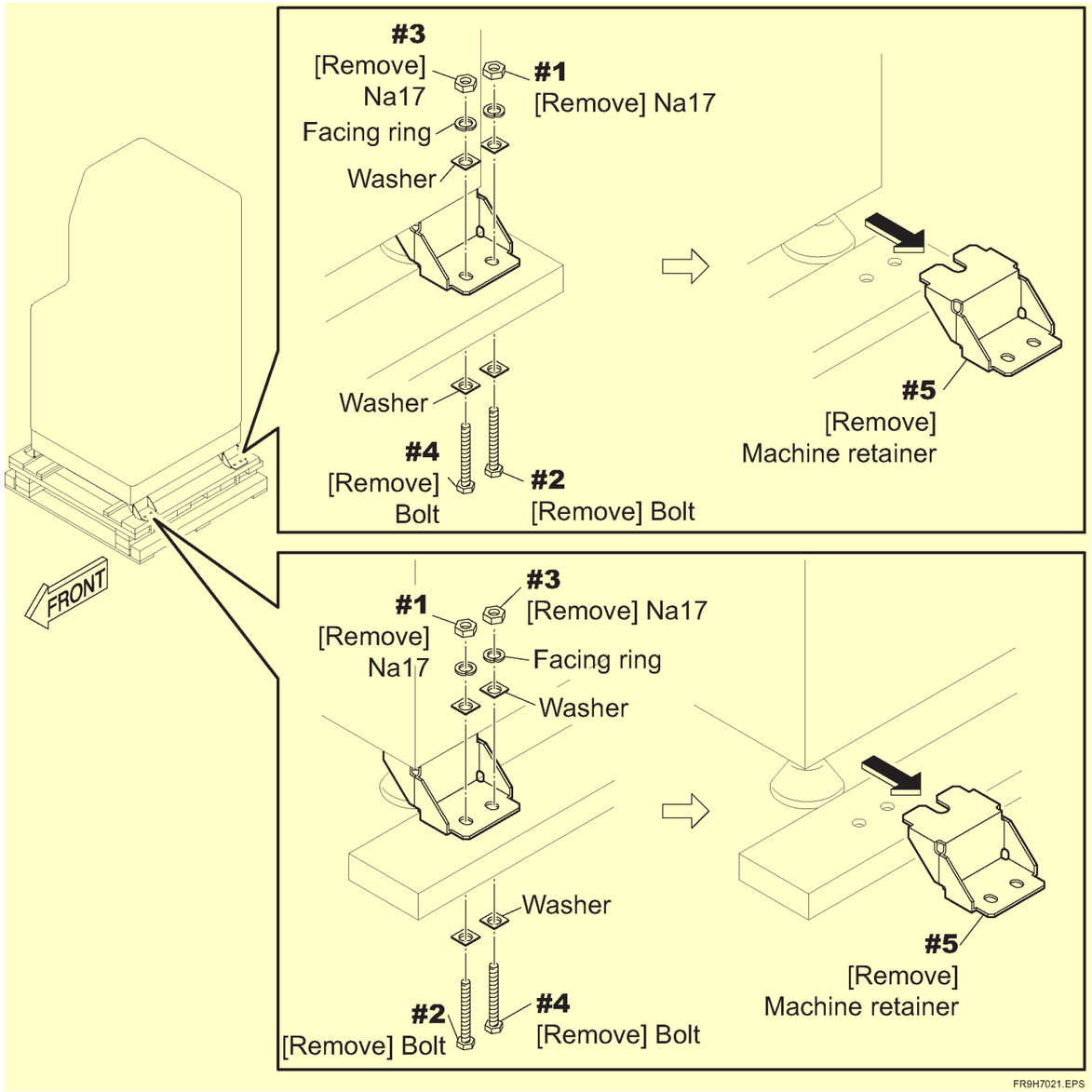


10. **Remove the machine retainers on the right-hand side.**

When the four nuts are loosened, the machine retainers lower accordingly, so that the machine moves down onto the carrier pallet.

CAUTION

When the nut is loosened, the machine may incline by its own weight. So, use care not to get your finger pinched by the machine retainer or adjustable foot.

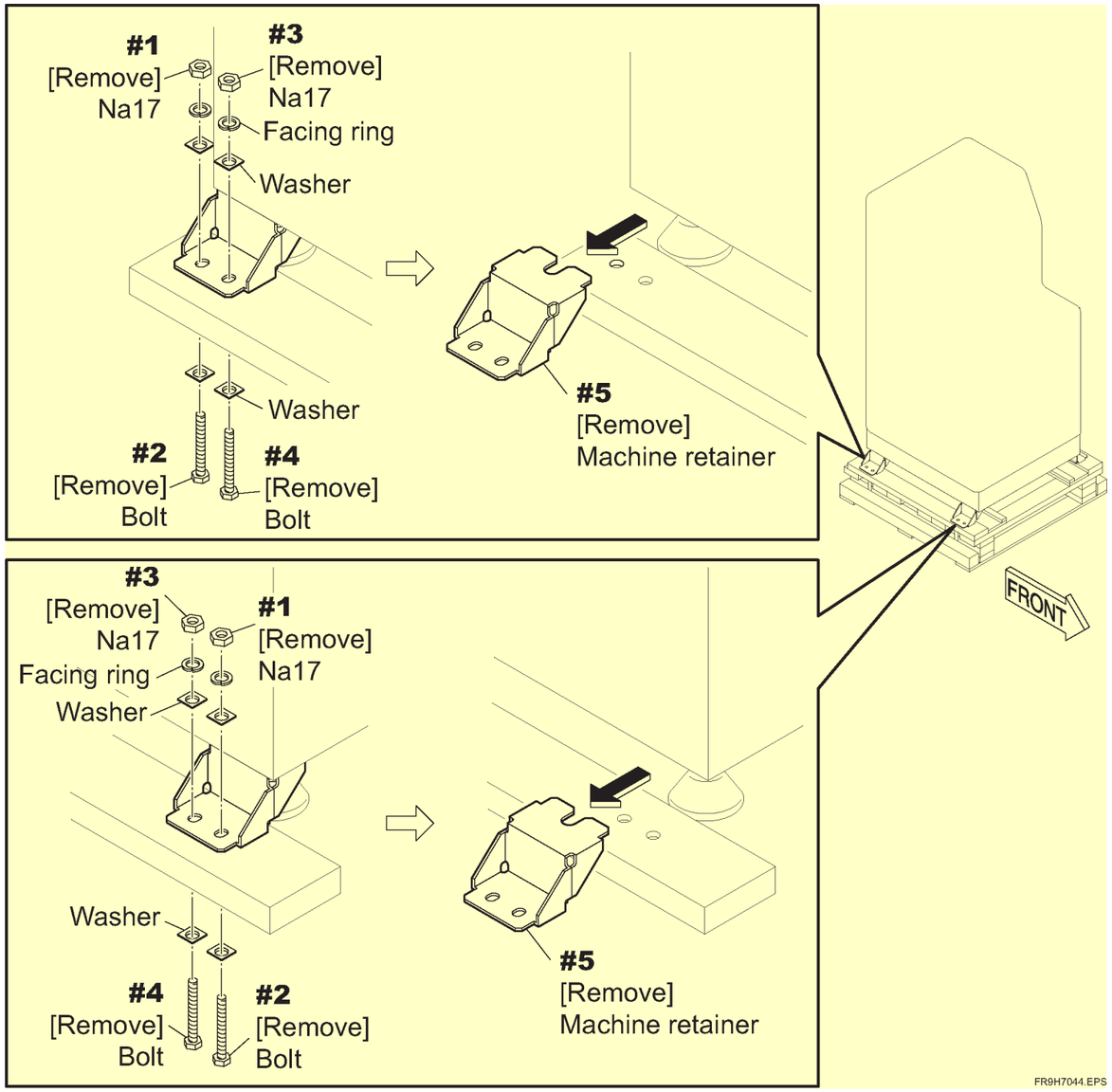


11. Remove the machine retainers on the left-hand side.

When the four nuts are loosened, the machine retainers lower accordingly, so that the machine moves down onto the carrier pallet.

CAUTION

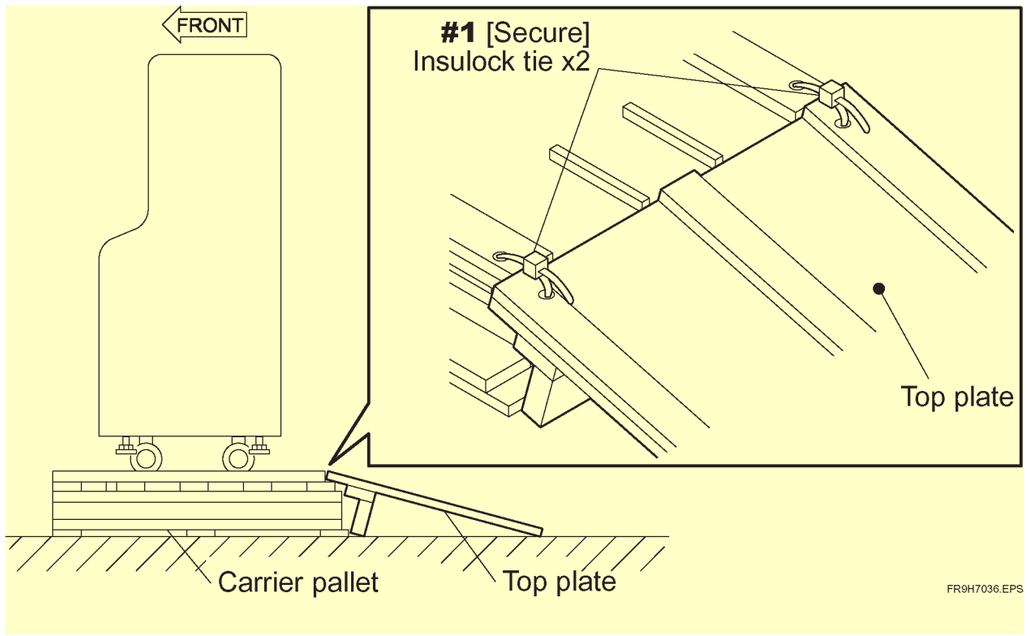
When the nut is loosened, the machine may incline by its own weight. So, use care not to get your finger pinched by the machine retainer or adjustable foot.



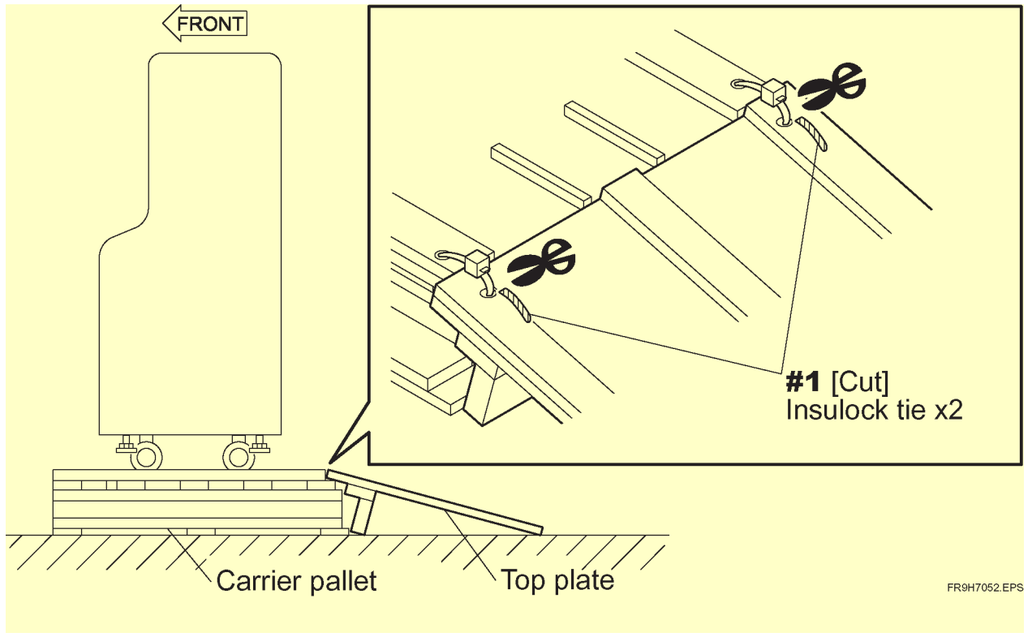
12. Secure the top plate removed at step 6 onto the carrier pallet.

CAUTIONS

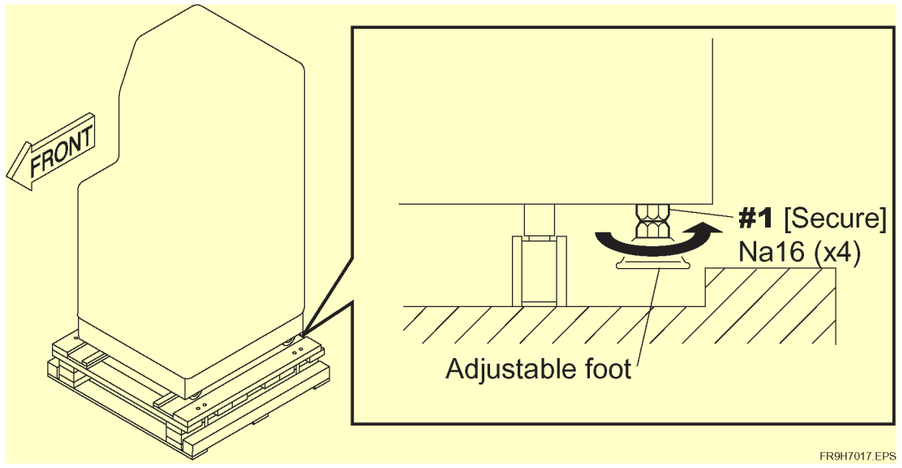
- ***Use the insulock ties to fix the top plate onto the carrier pallet securely.***
- ***Be sure to secure the top plate on the rear side of the machine. The carrier pallet is designed so that the top plate cannot be secured on the front side of the machine.***



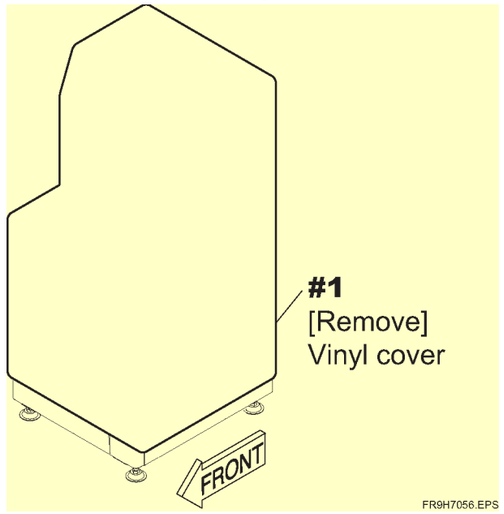
13. **Cut the Insulock ties.**



14. **Raise the adjustable feet up to their upper limit.**



15. **Remove the vinyl cover that protects the machine.**



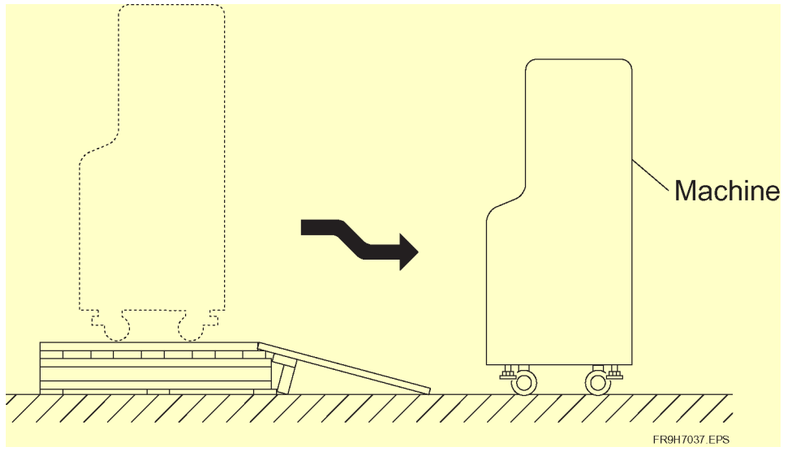
◆ ***INSTRUCTION*** ◆

During the winter season, allow the machine to stand under its cover-attached condition for sufficient time before unpacking it.
If the vinyl cover is removed immediately after the machine is carried into the room, moisture condensation may occur on the machine.

16. **Lower the machine from the carrier pallet.**

⚠ ***CAUTION***

When lowering the machine from the carrier pallet, one person should be positioned on the right-hand side of the machine, and the other on its left-hand side.

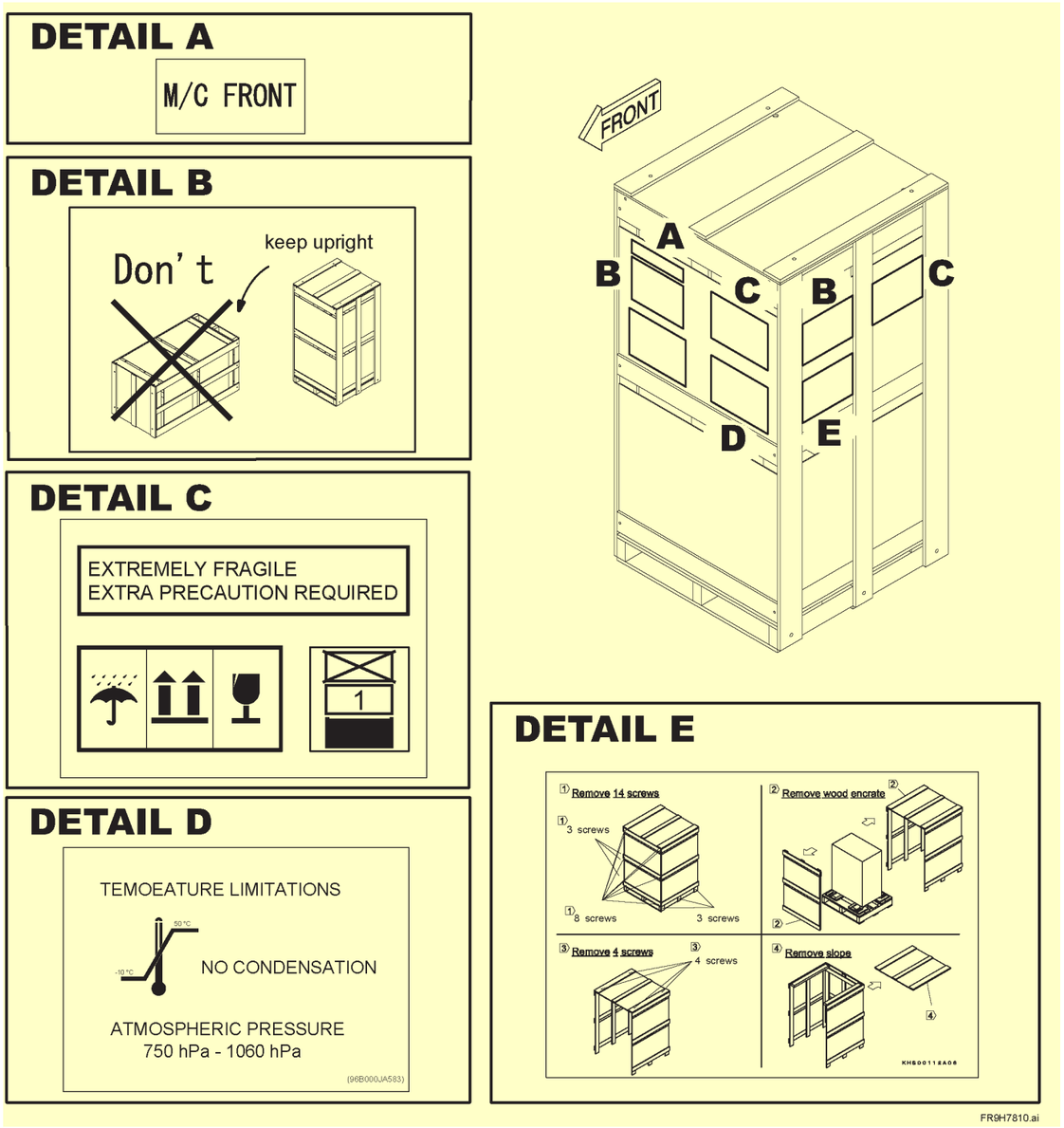


3.2.2 Unloading (#50001 or Later): For countries specifying the crate

1. **Move down the machine together with the carrier pallet from the load-carrying platform of the truck.**

◇ *REFERENCE* ◇

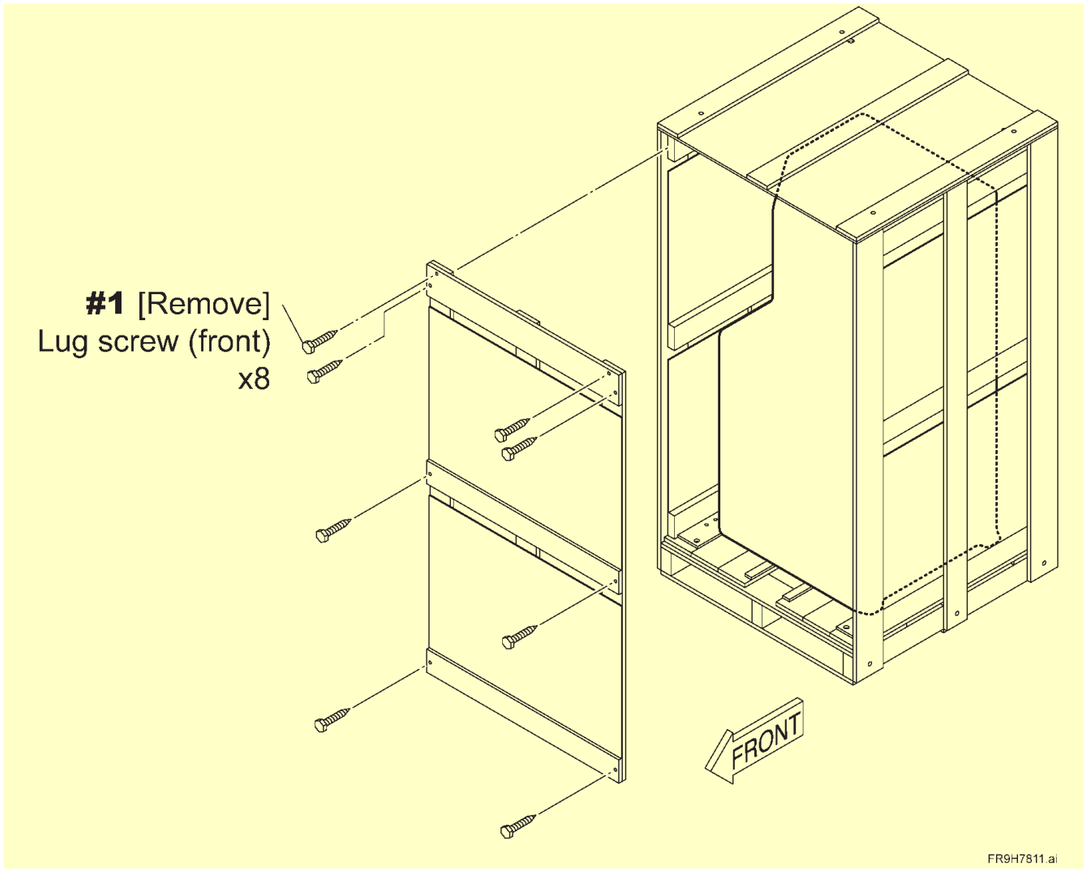
- The following label is attached to the crate.
- In case of machines for China, a label in Chinese is attached.



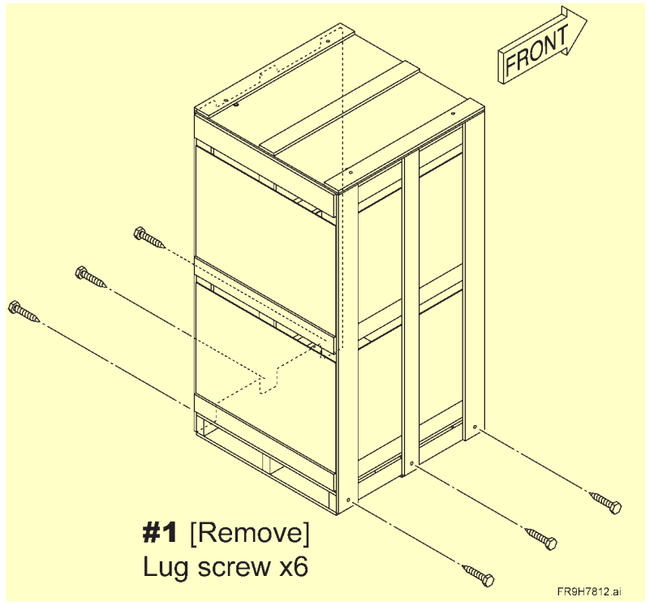
2. **Remove the front end of the crate.**

◆ ***NOTE*** ◆

The removed crate should be moved away to an unobstructive place.



3. **Remove the screws from the crate.**



4. **Incline the crate to take it out.**

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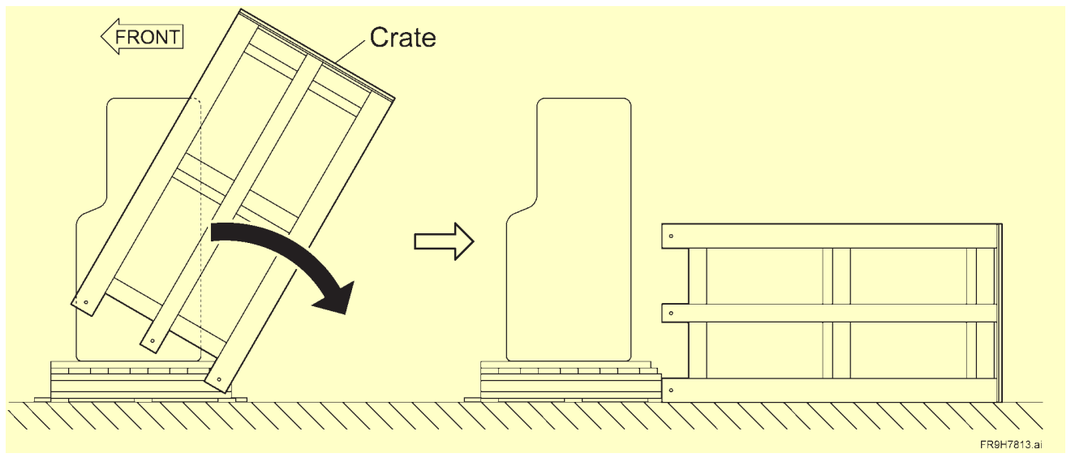
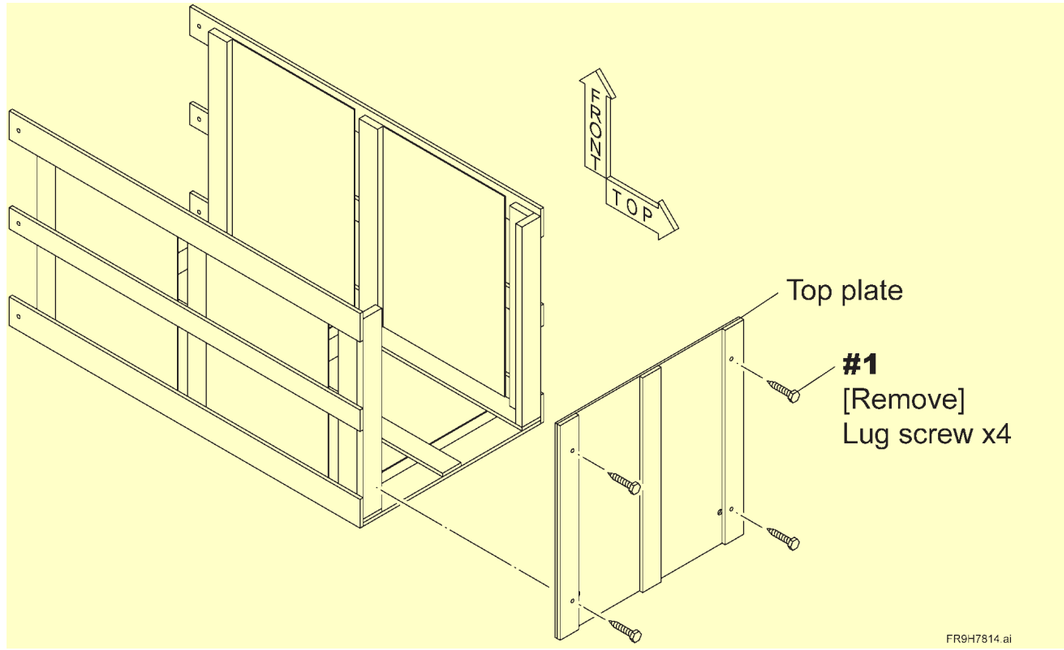
When removing the crate, incline the crate to take it out. If you try to move the crate, it might hit the machine, thereby damaging the machine.



5. **Remove the top plate from the crate.**

CAUTION

The top plate should not be disassembled, because it will be used when lowering the machine from the carrier pallet.



◇ *REFERENCES* ◇

- *After the top plate is removed, break up the crate and put the resulting pieces together for conveyance.*
- *Because the crate is assembled with nails, hit it with a hammer or the like from inside to break up the crate.*
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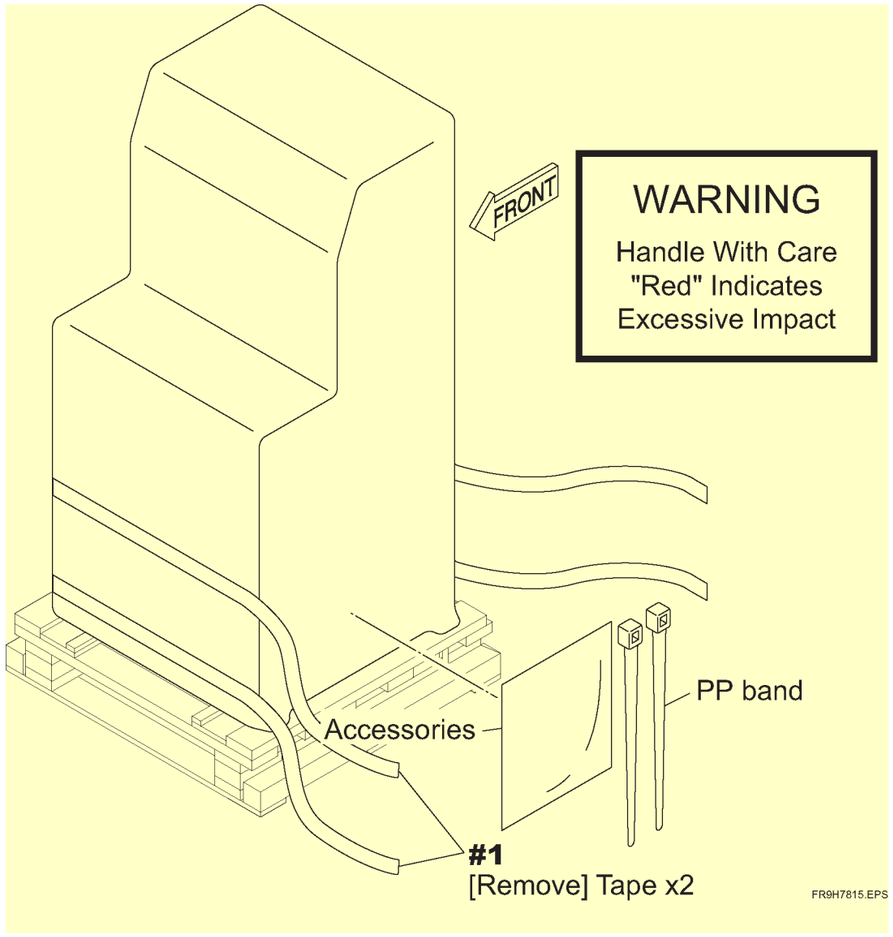
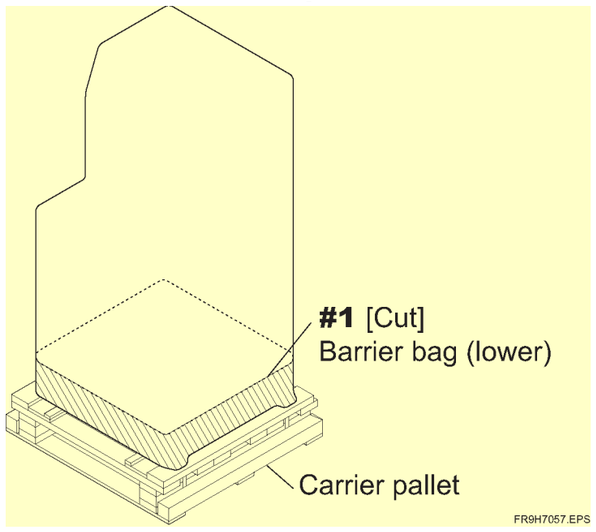
6. **Remove the accessories-containing bug.**



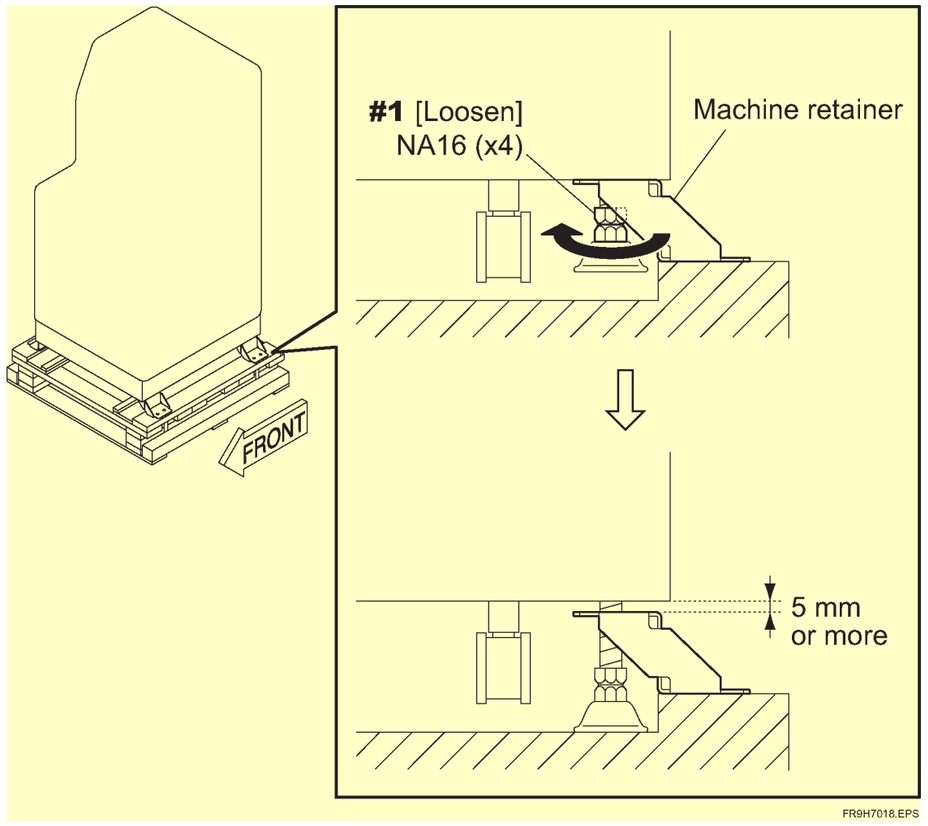
7. **Remove the lower portion of the barrier bag that protects the machine.**



8. **Lower the adjustable feet bolts to lift up the machine.**

CAUTION

Unless the machine is lifted up by the adjustable feet, the machine retainers could not be removed.



9. **Remove the machine retainers on the right-hand side.**

When the four nuts are loosened, the machine retainers lower accordingly, so that the machine moves down onto the carrier pallet.

CAUTION

When the nut is loosened, the machine may incline by its own weight. So, use care not to get your finger pinched by the machine retainer or adjustable foot.

10. **Remove the machine retainers on the left-hand side.**

When the four nuts are loosened, the machine retainers lower accordingly, so that the machine moves down onto the carrier pallet.

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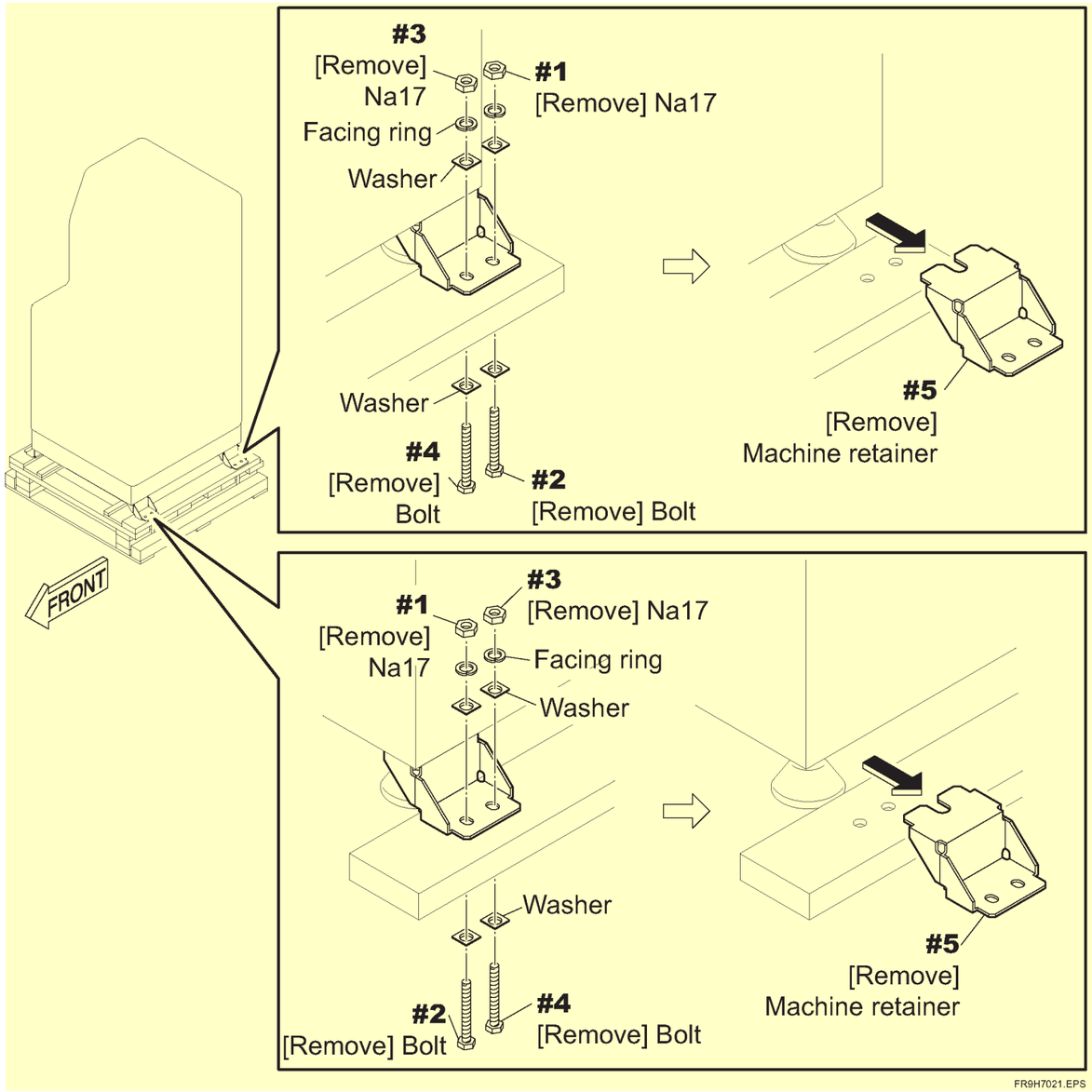
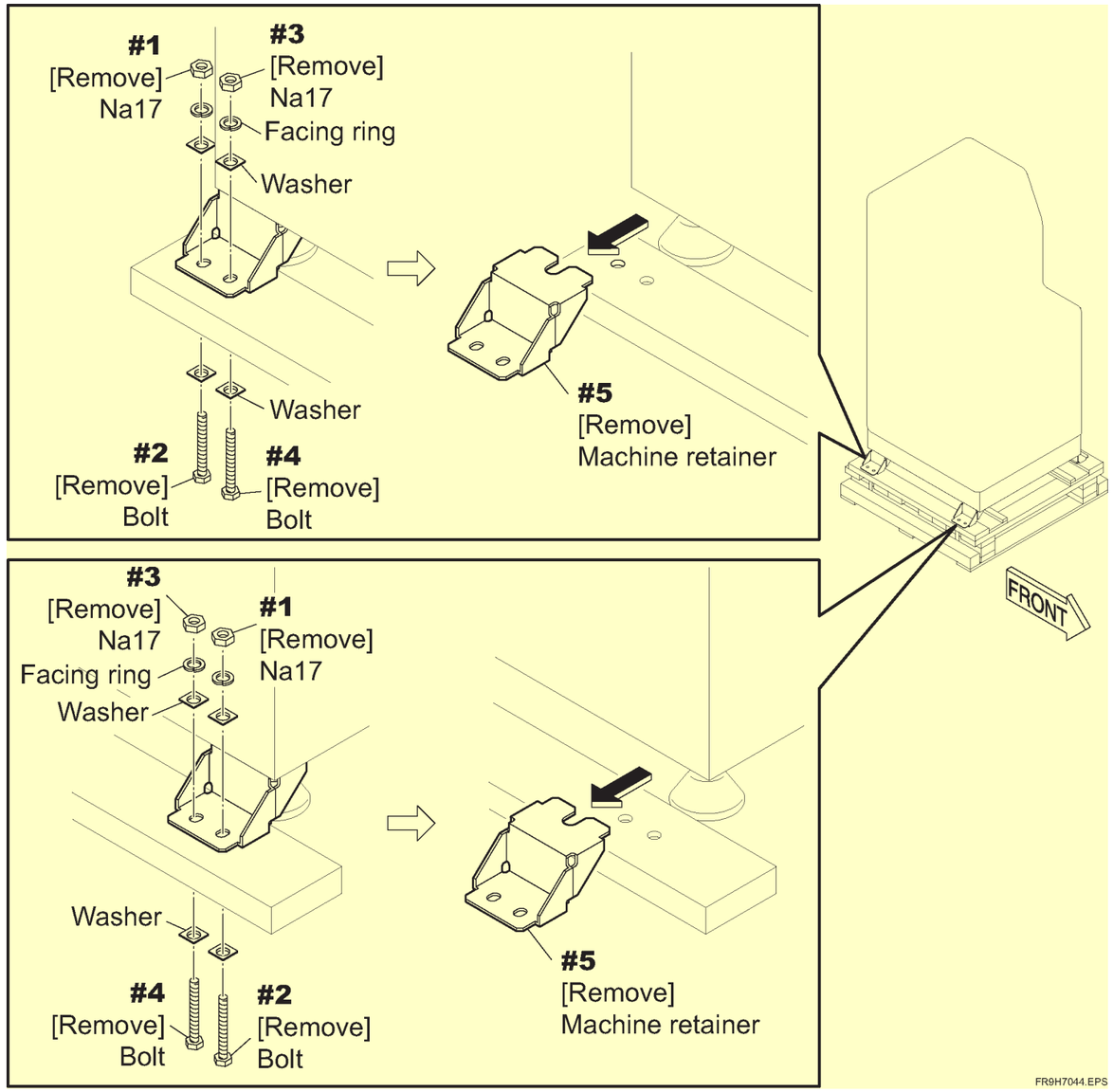
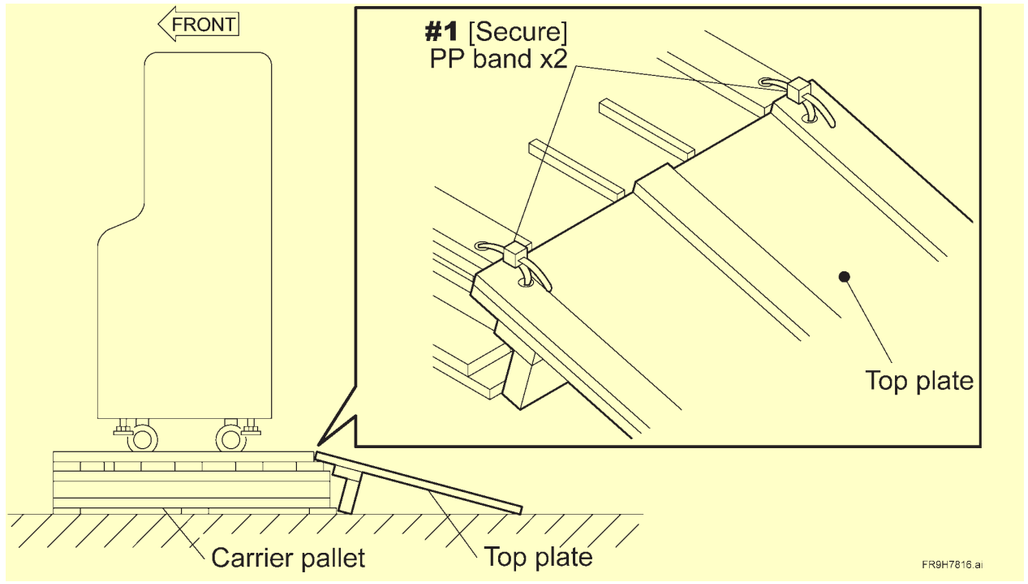




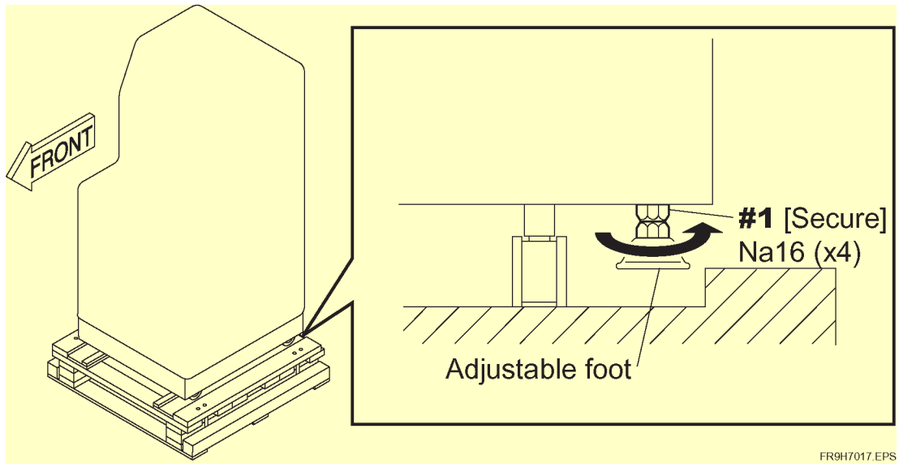
11. **Secure the top plate removed at step 6 onto the carrier pallet.**

CAUTIONS

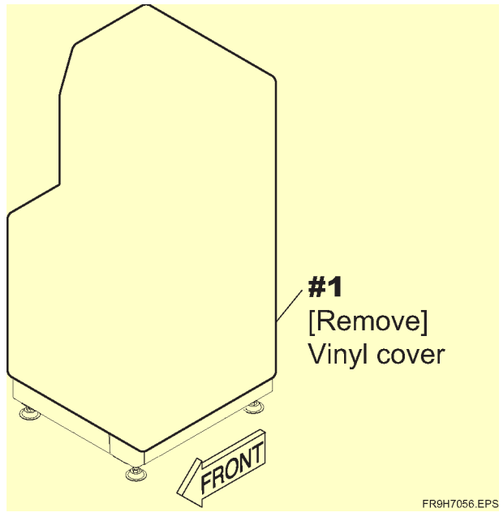
- ***Use the insulock ties to fix the top plate onto the carrier pallet securely.***
- ***Be sure to secure the top plate on the rear side of the machine. The carrier pallet is designed so that the top plate cannot be secured on the front side of the machine.***



12. **Raise the adjustable feet up to their upper limit.**



13. **Remove the vinyl cover that protects the machine.**



◆ ***INSTRUCTION*** ◆

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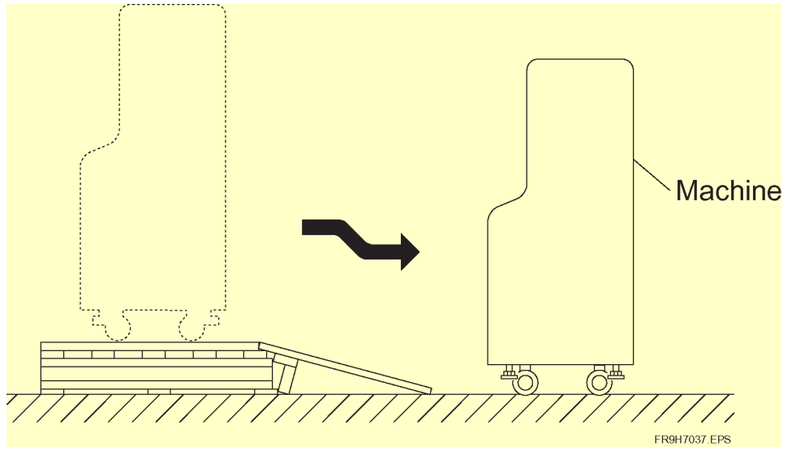
If the vinyl cover is removed immediately after the machine is carried into the room, moisture condensation may occur on the machine.

14. **Lower the machine from the carrier pallet.**

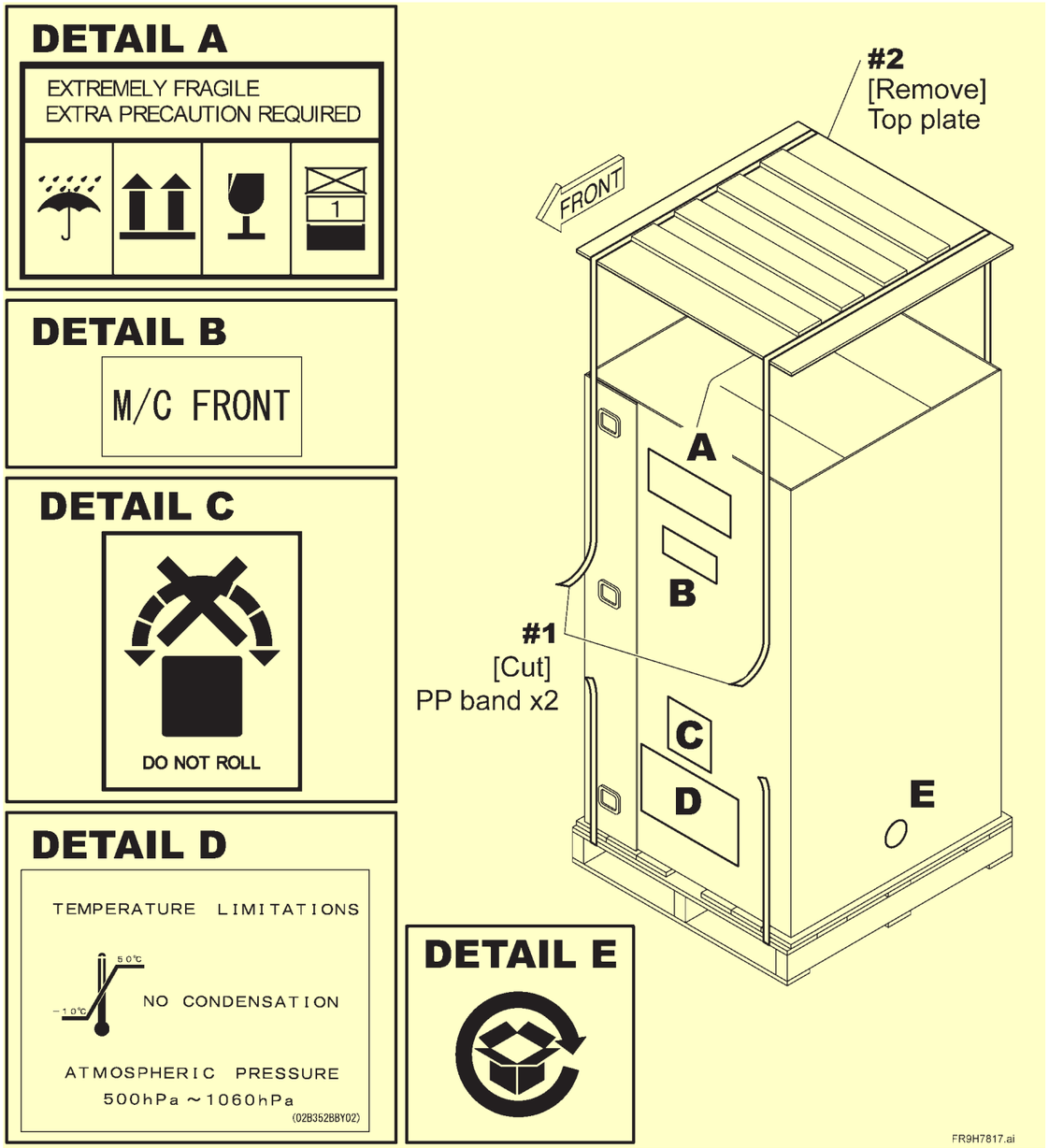
CAUTION

When lowering the machine from the carrier pallet, one person should be positioned on the right-hand side of the machine, and the other on its left-hand side.

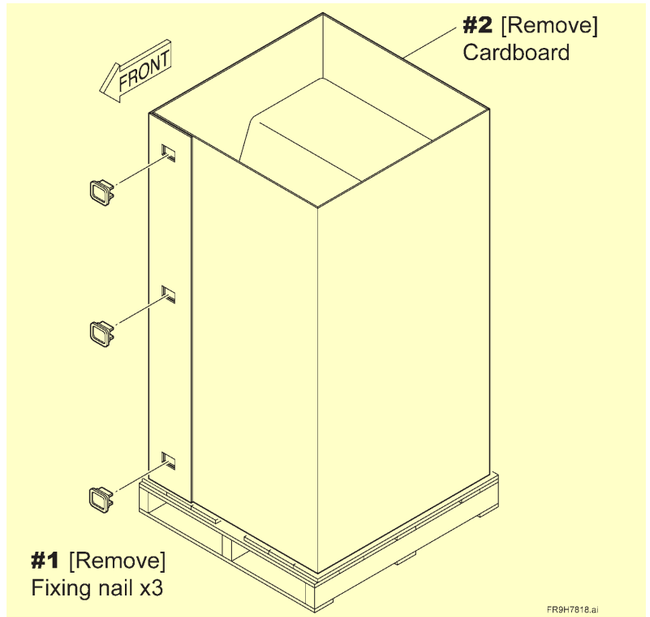


3.2.3 Unloading (#50001 or Later): Other than countries specifying the crate

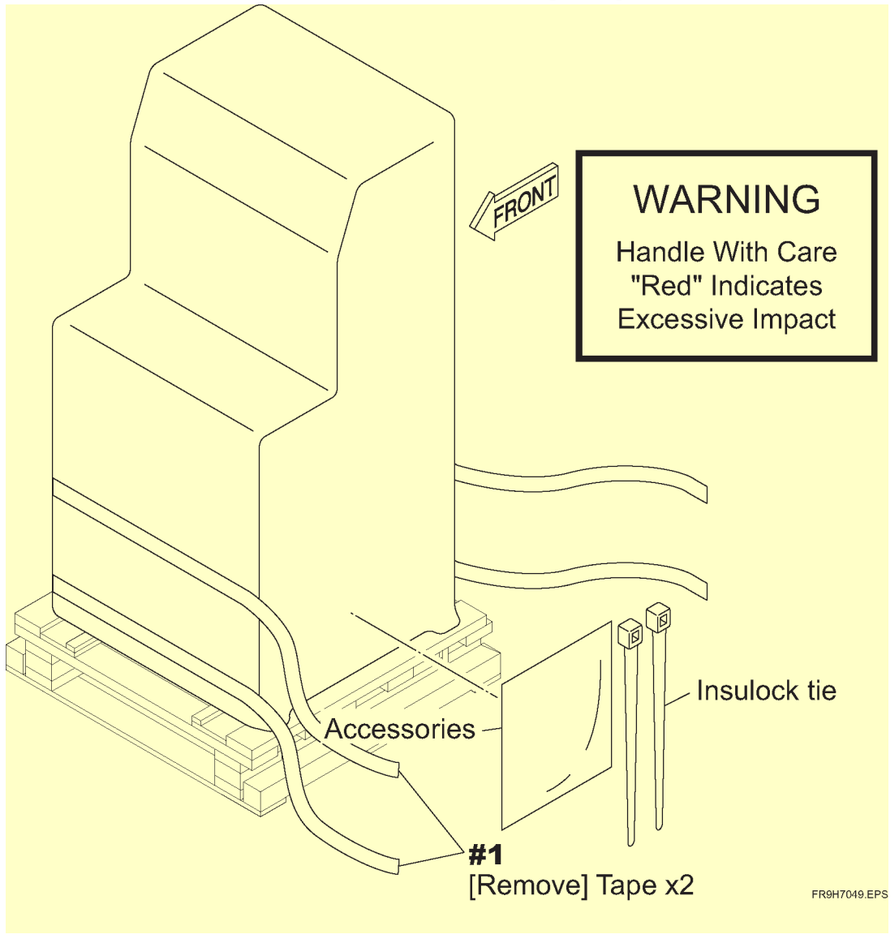
1. **Move down the machine together with the carrier pallet from the load-carrying platform of the truck.**
2. **Cut the PP band, and remove the top plate.**



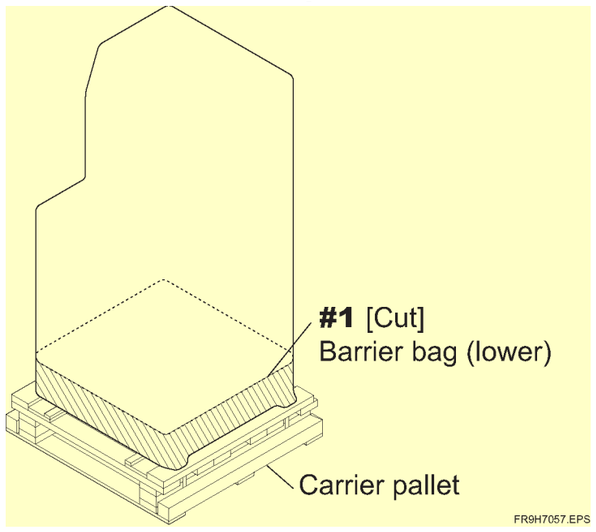
3. **Clear the fixing nail, and remove the cardboard.**



4. **Remove the accessories-containing bug.**



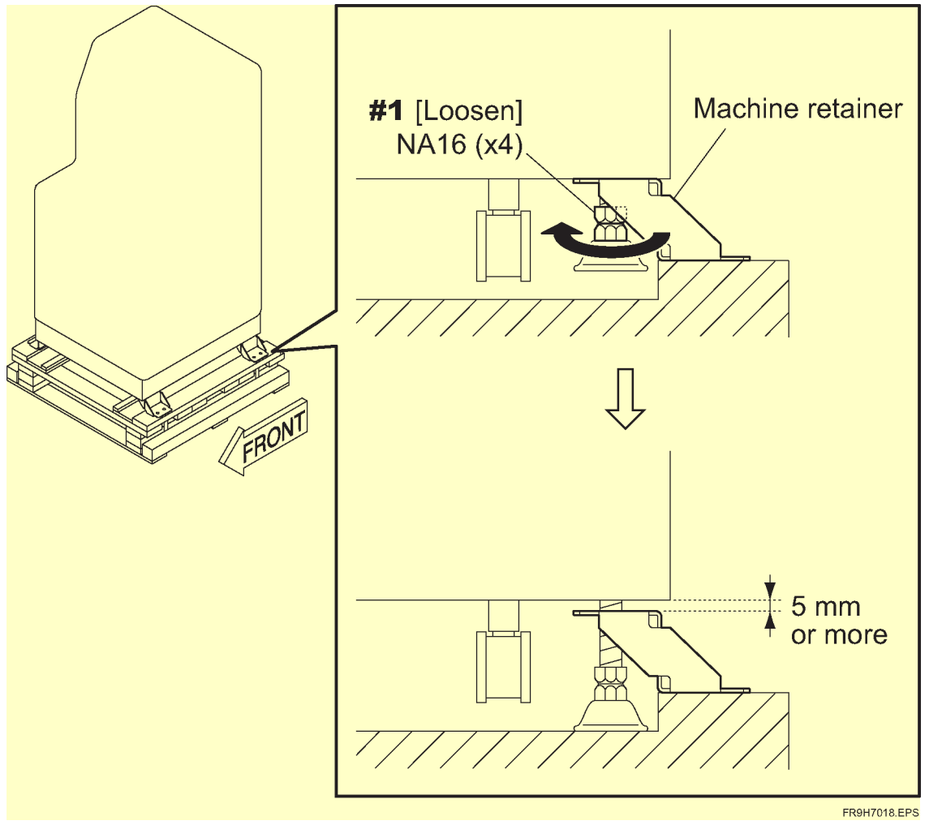
5. **Remove the lower portion of the barrier bag that protects the machine.**



6. **Lower the adjustable feet bolts to lift up the machine.**

CAUTION

Unless the machine is lifted up by the adjustable feet, the machine retainers could not be removed.



7. Remove the machine retainers on the right-hand side.

When the four nuts are loosened, the machine retainers lower accordingly, so that the machine moves down onto the carrier pallet.

CAUTION

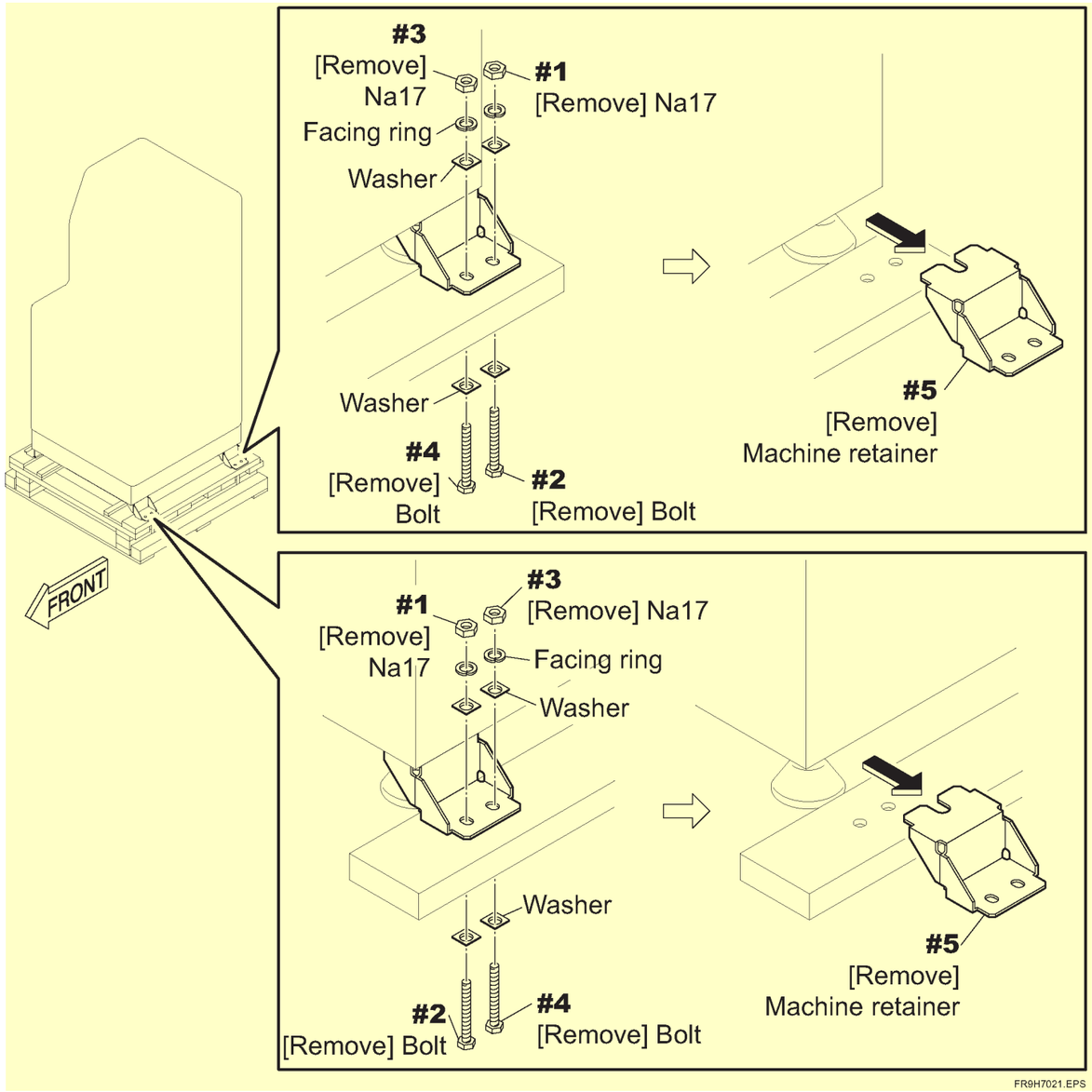
When the nut is loosened, the machine may incline by its own weight. So, use care not to get your finger pinched by the machine retainer or adjustable foot.

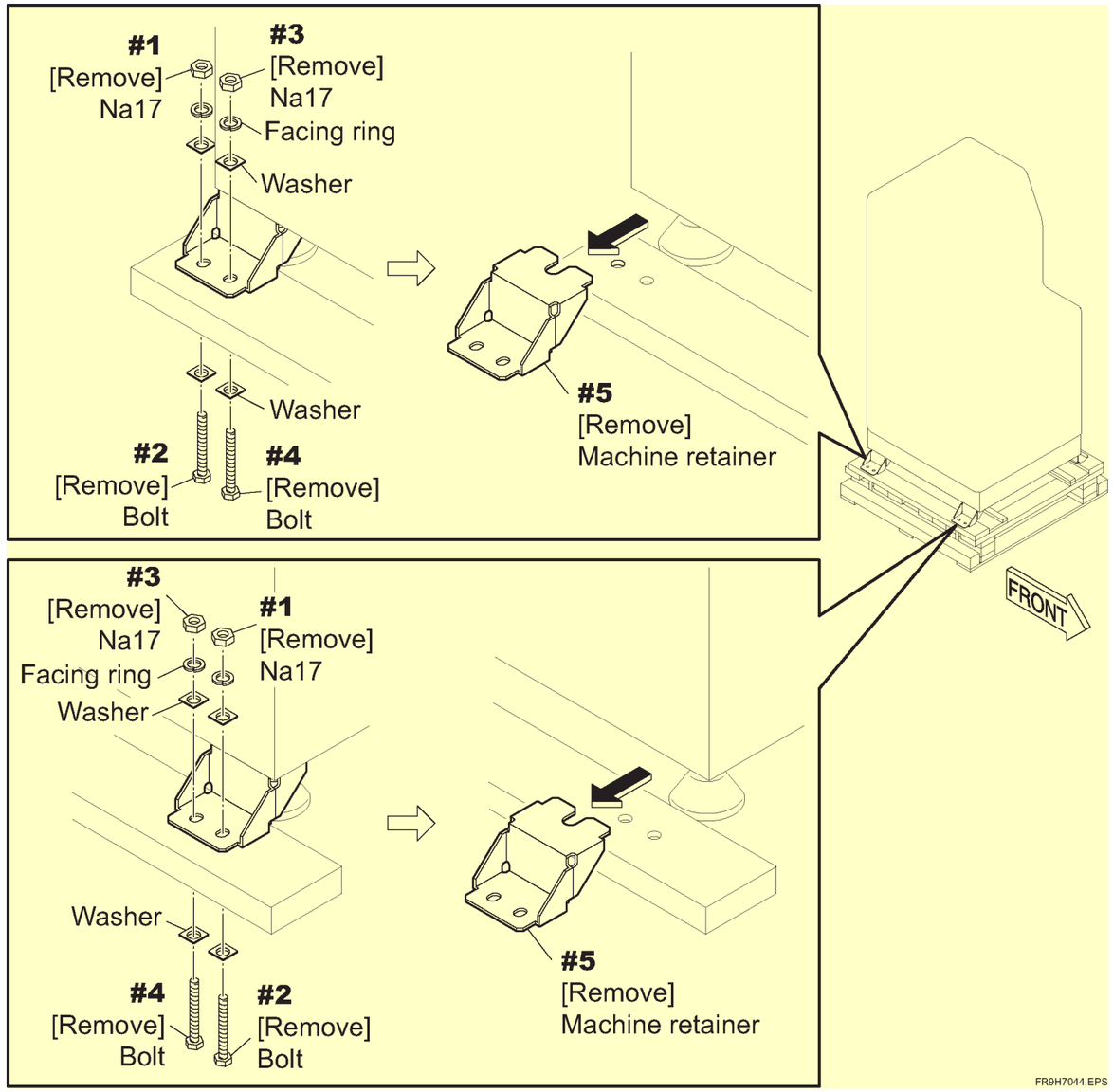
8. Remove the machine retainers on the left-hand side.

When the four nuts are loosened, the machine retainers lower accordingly, so that the machine moves down onto the carrier pallet.

CAUTION

When the nut is loosened, the machine may incline by its own weight. So, use care not to get your finger pinched by the machine retainer or adjustable foot.

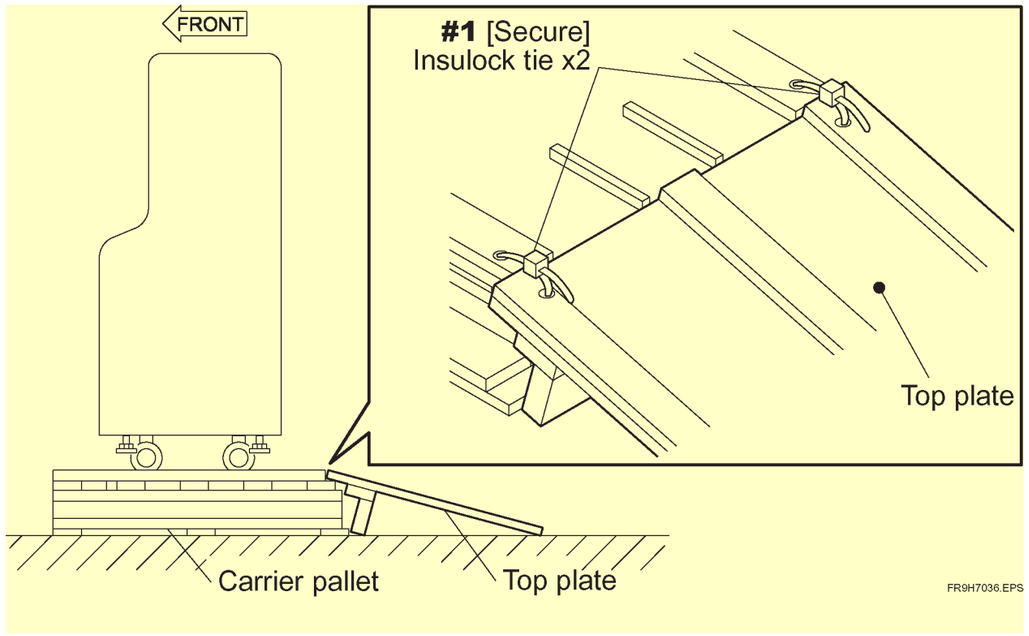




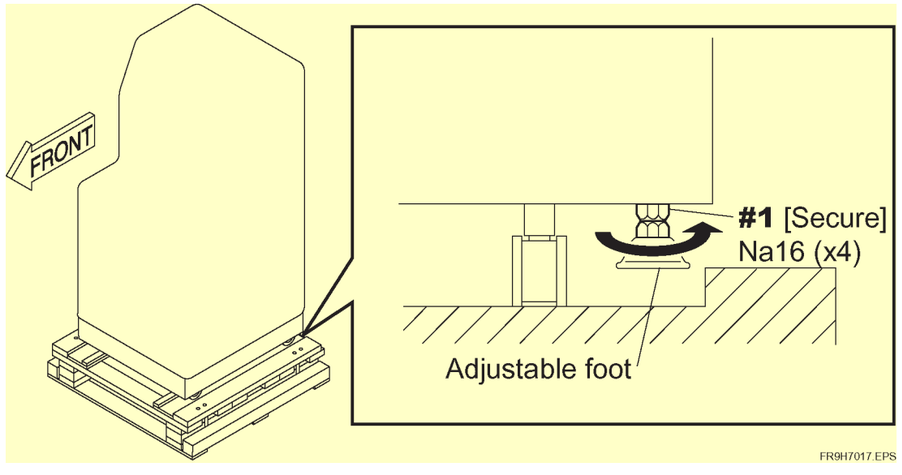
9. **Secure the top plate removed at step 6 onto the carrier pallet.**

CAUTIONS

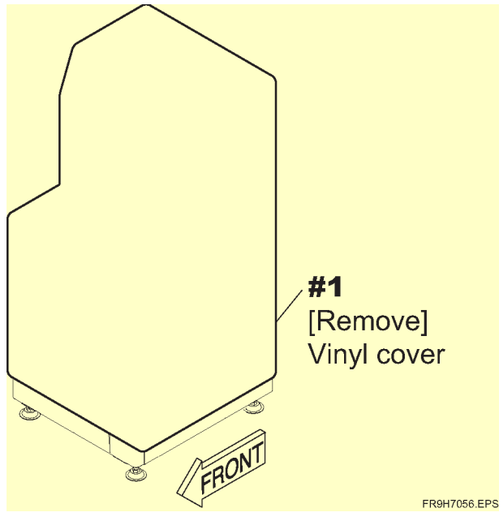
- ***Use the insulock ties to fix the top plate onto the carrier pallet securely.***
- ***Be sure to secure the top plate on the rear side of the machine. The carrier pallet is designed so that the top plate cannot be secured on the front side of the machine.***



10. **Raise the adjustable feet up to their upper limit.**



11. **Remove the vinyl cover that protects the machine.**



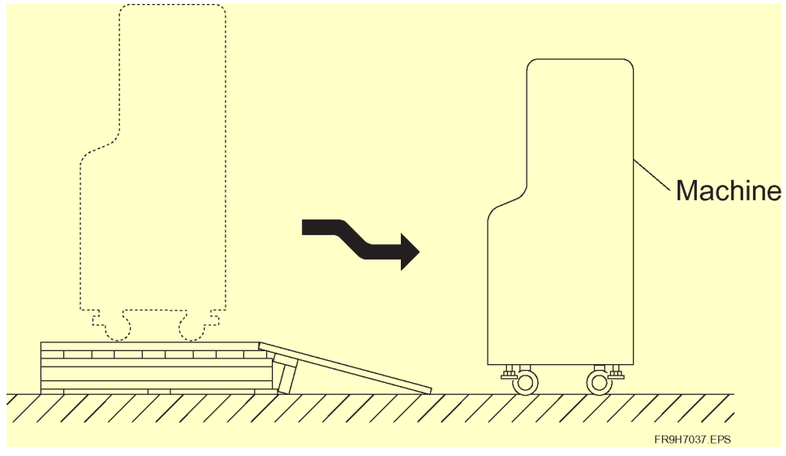
◆ ***INSTRUCTION*** ◆

During the winter season, allow the machine to stand under its cover-attached condition for sufficient time before unpacking it.
If the vinyl cover is removed immediately after the machine is carried into the room, moisture condensation may occur on the machine.

12. **Lower the machine from the carrier pallet.**

CAUTION

When lowering the machine from the carrier pallet, one person should be positioned on the right-hand side of the machine, and the other on its left-hand side.



3.3 Transfer

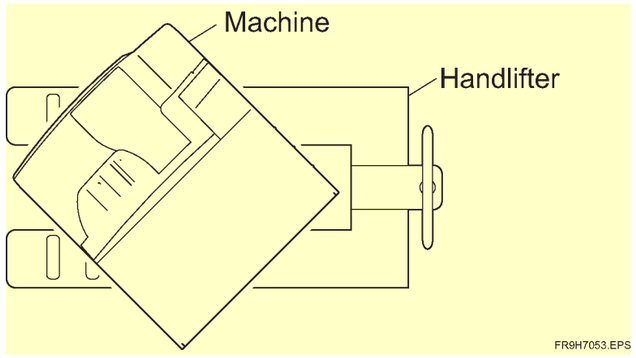
⚠ *CAUTIONS*

- ***When unloading the machine, two persons should always cooperate to do so.***
- ***When transferring the machine by use of its casters, raise the adjustable feet of the machine all the way up to their upper limit.***
- ***When bringing the machine into the installation place, support it so that it will not topple down.***
- ***When supporting the machine, grasp the sides and rear of the machine. If the plastic portion of the machine's front is grasped, the machine may be damaged.***
- ***When the machine should be moved over some step or bump, move it as slowly as possible to avoid shock to it. Note that the step over which the machine may move is about 10 mm high at most.***

1. Put the hand lifter underneath the machine.

◆ ***INSTRUCTION*** ◆

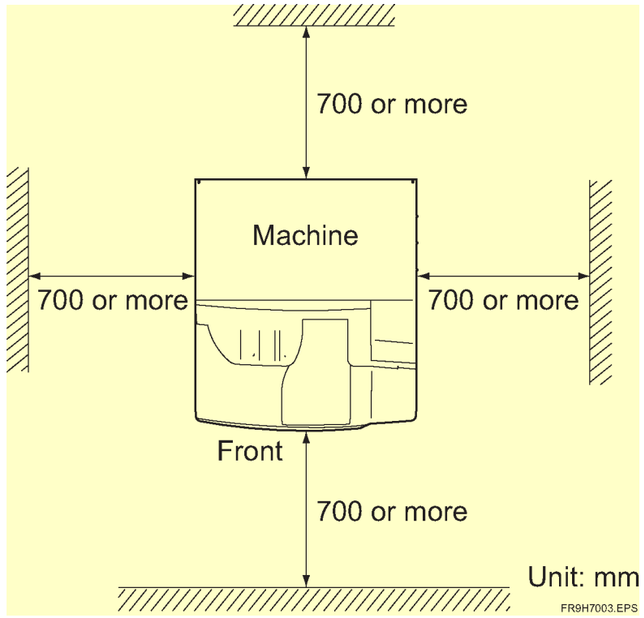
The hand lifter should be oriented aslant with respect to the machine.



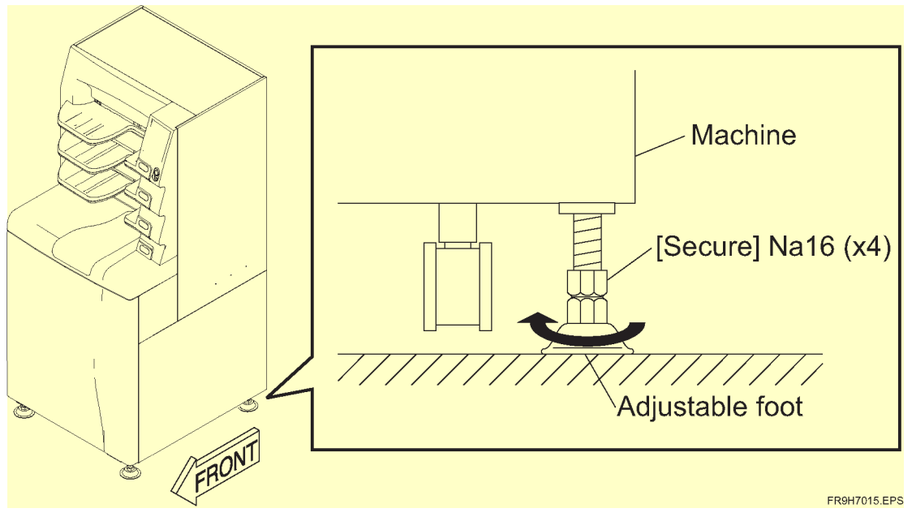
2. Transfer the machine into the installation place.

3.4 Temporary Placement

1. Secure space required for installation procedures and temporarily place the machine.



2. Secure the machine with the adjustable feet in place.



3.5 Checking the Items Supplied

Check whether all the items are supplied in accordance with the PACKING LIST that is contained in each carton.

■ Machine Main Body

Check Item	Qty.	Remarks
Machine main body	1	

■ Accessories

Check Item	Qty.	Remarks
Instruction Manual	1	
Test Result Sheet	1	
Machine-specific data floppy diskette	1	3.5-inch/1.44 MB
CD-ROM	1	For backup
Fuse set	1	Spare
Clamp	2	
Insulock tie	2	
Label	1	Cassette insert operation label
	1	Exposure markers precaution label
Spur gear	1	
Timing belt wheel	1	324N3164
	1	324N3165
Screw	5	TP3x6
	2	T4x8

■ Optional Items

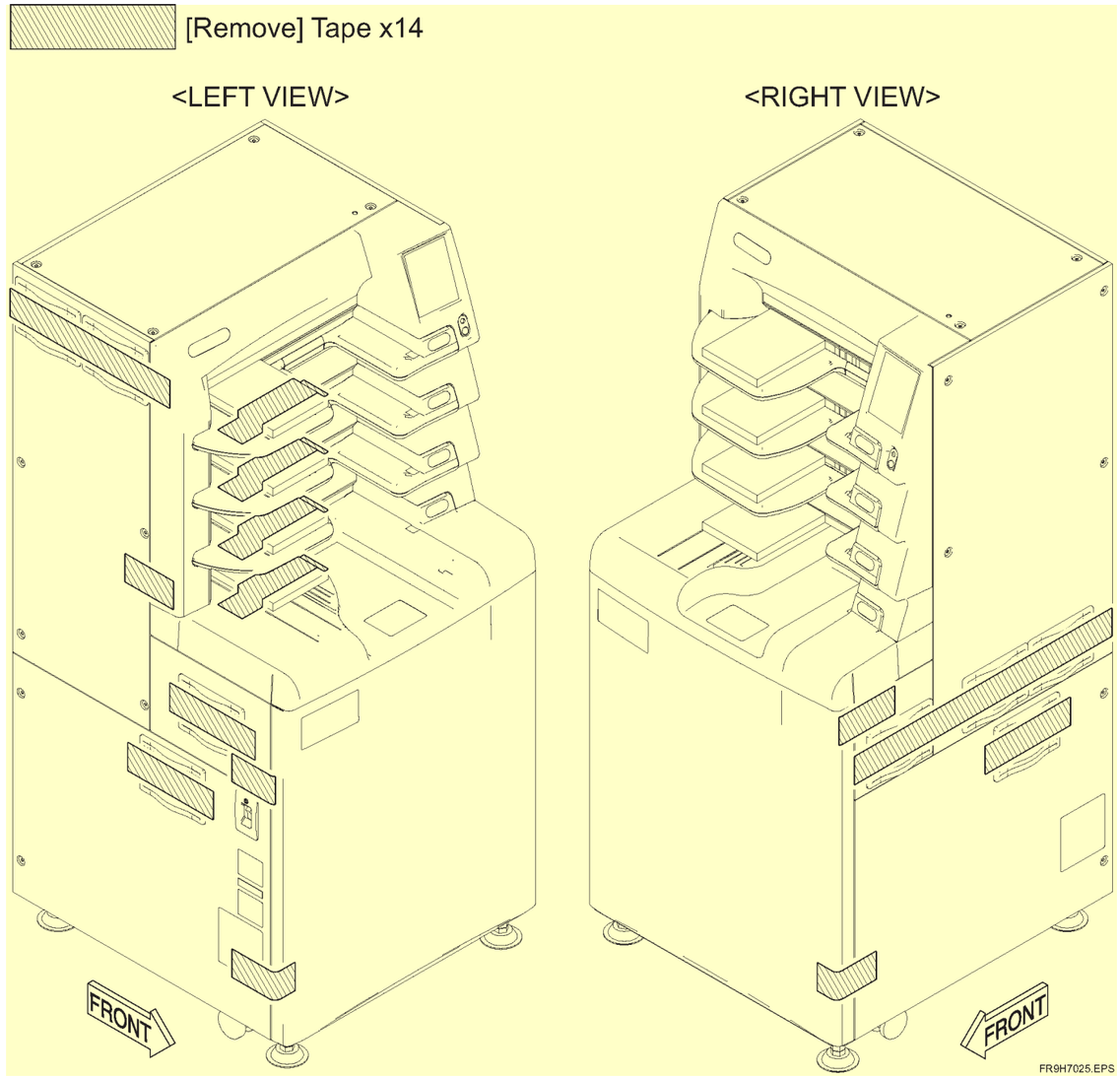
Check Item	Qty.	Remarks
Machine AC power cable for use in U.S.	1	
Machine AC power cable for use in Europe (excluding U.K.), TUV certified	1	
Machine AC power cable for use in U.K., TUV certified	1	
Anti-topple retainer kit	1	For retaining the machine
Both-side cassette identification barcode reader	1	

4. Installation Procedures

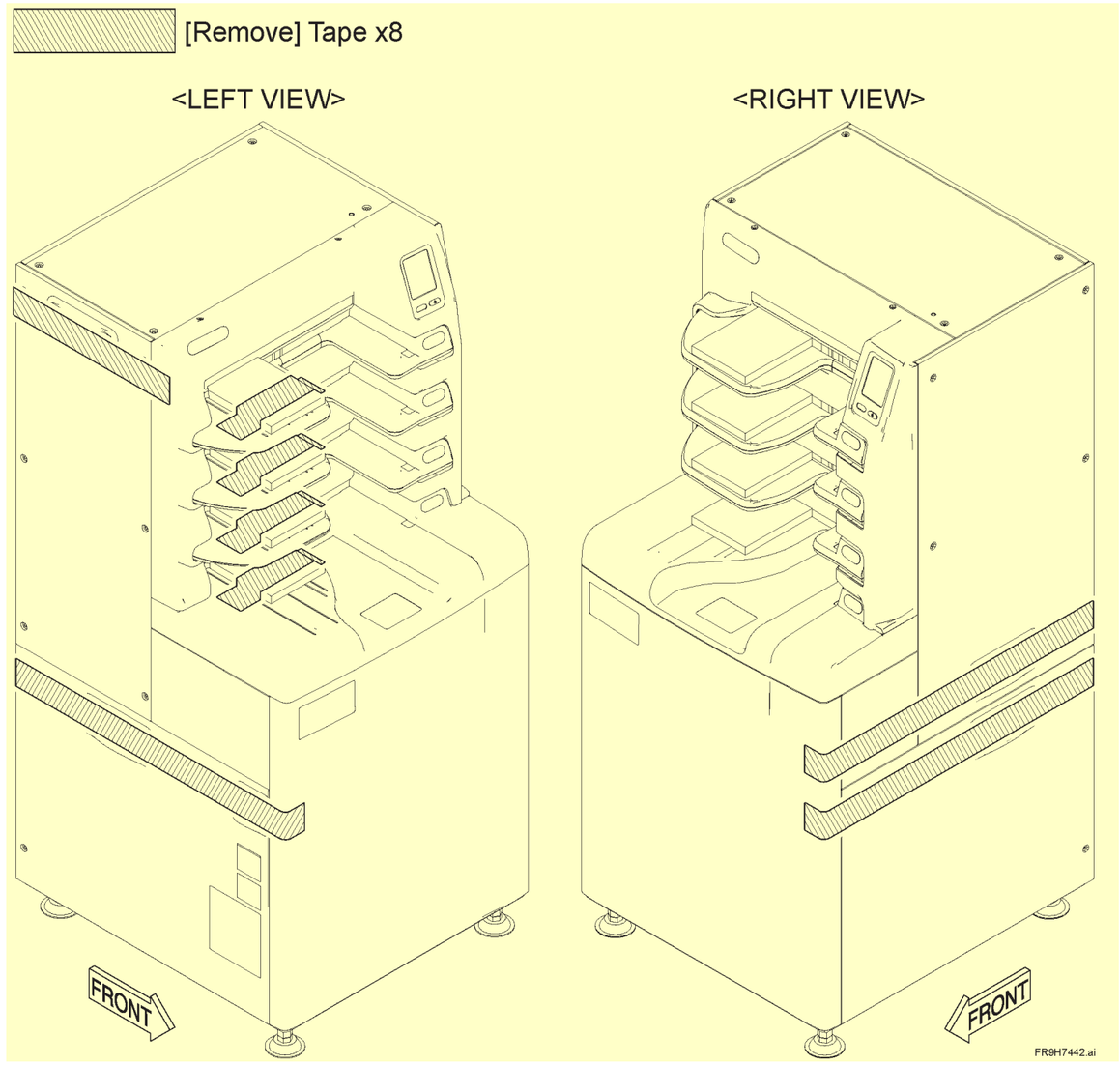
4.1 Removing Tapes from the Machine

1. **Remove the tapes.**

- #20001 or Later

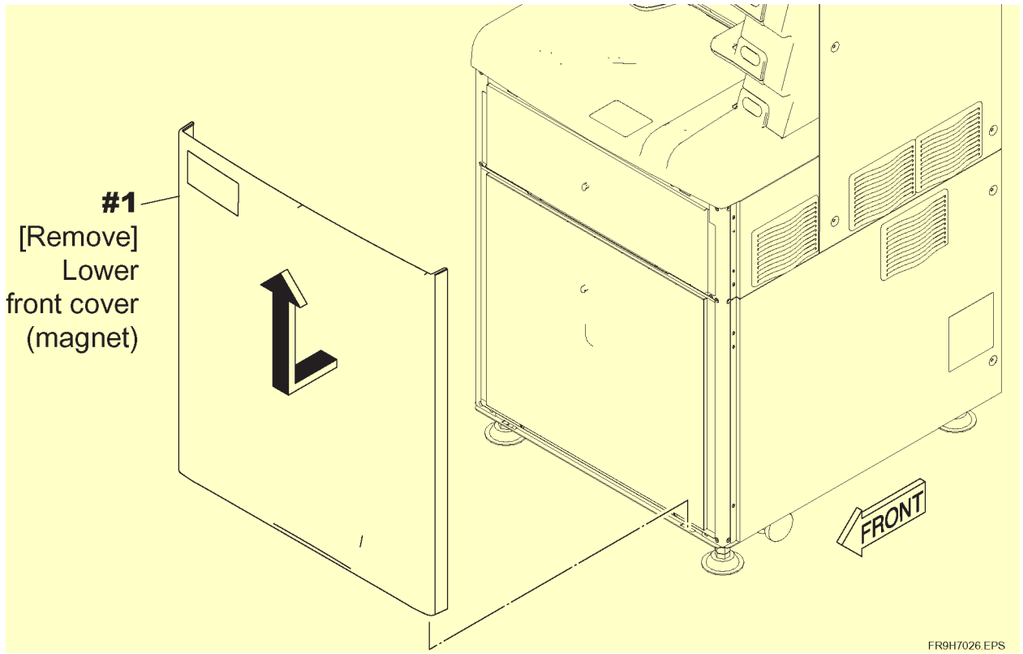


- #50001 or Later

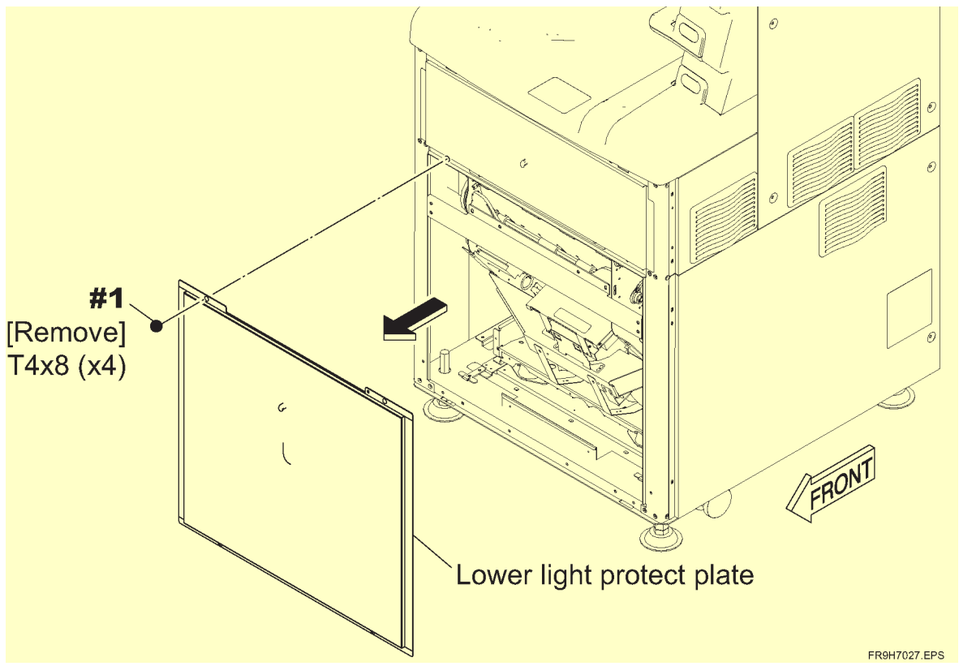


4.2 Removing the Light Protect Plates

1. **Remove the lower front cover.**



2. **Remove the lower light protect plate.**

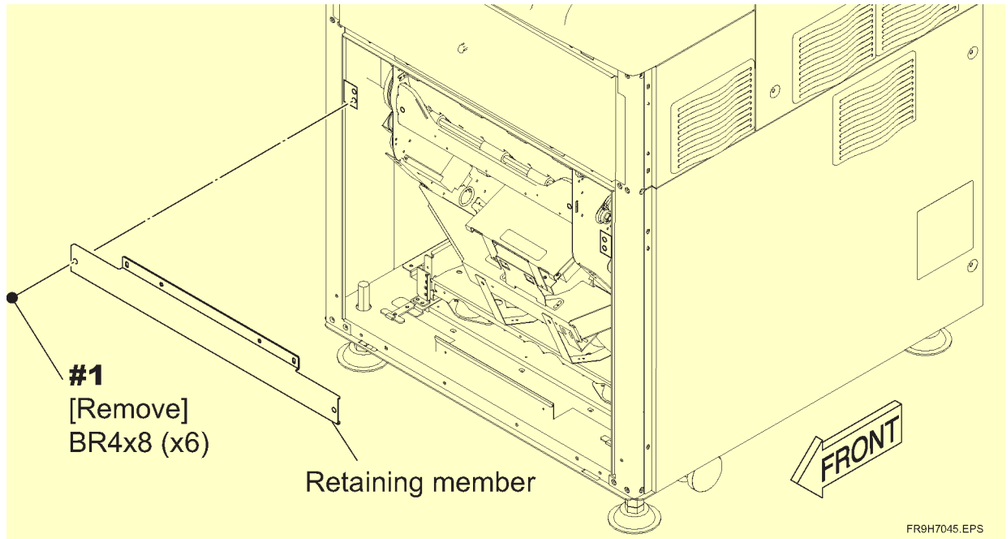


4.3 Repositioning the Retaining Members

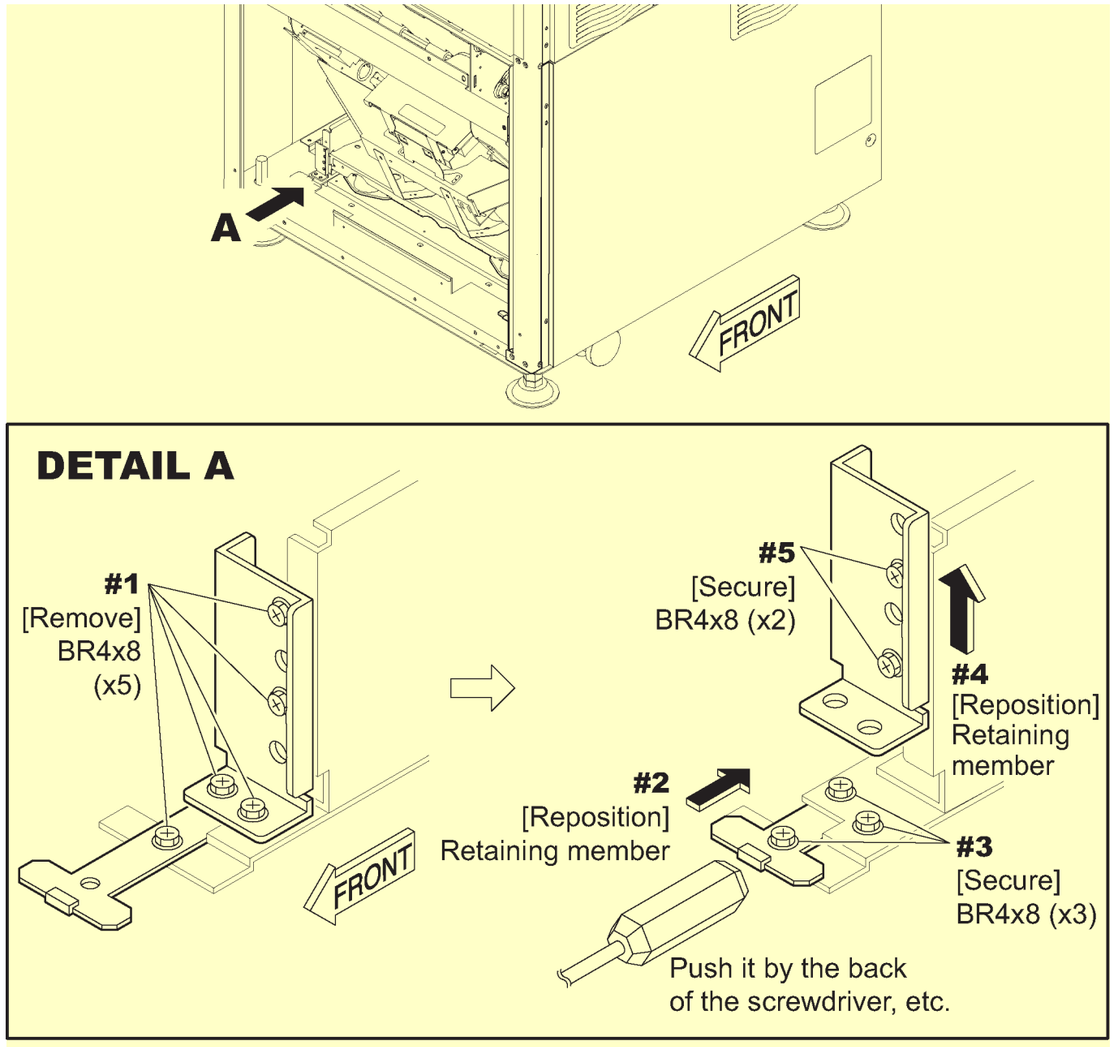
◇ *REFERENCE* ◇

The retaining members may be removed along the rope.

1. **Remove the upper retaining member.**



2. **Reposition the lower retaining members.**



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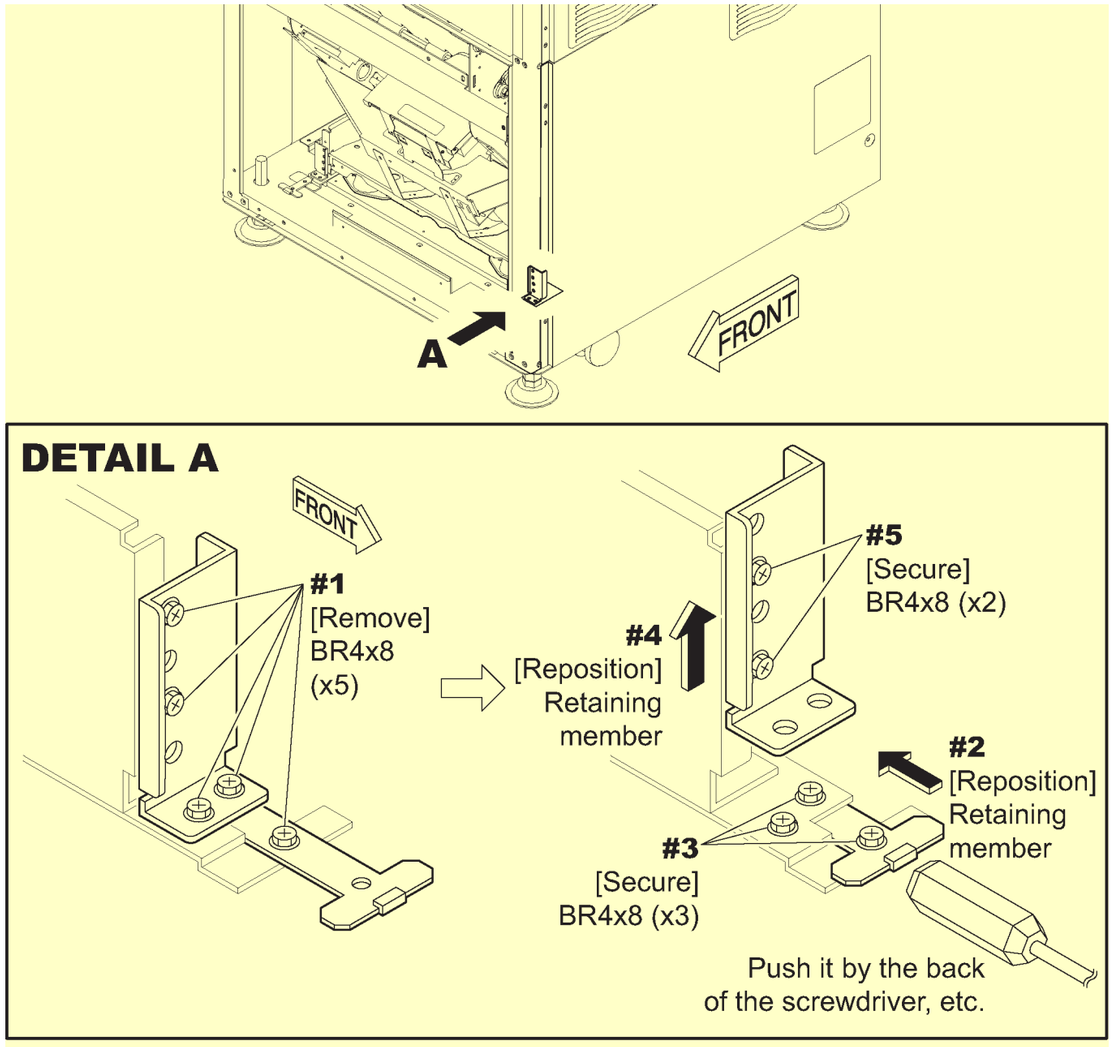
3. **Reposition the lower retaining members.**



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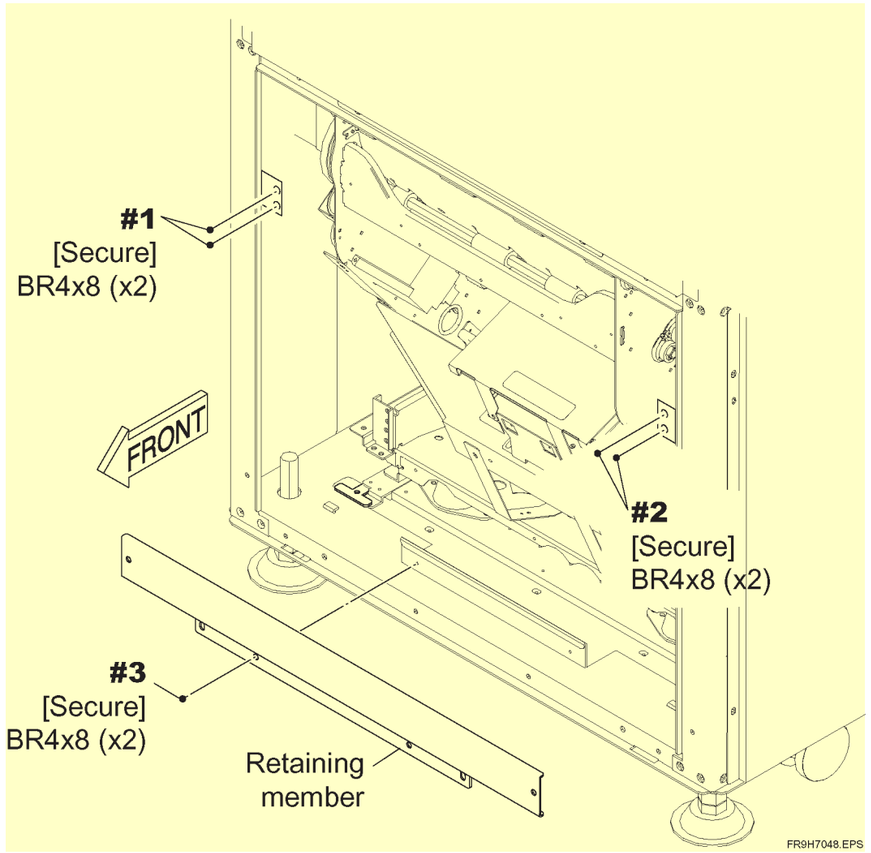
4. **Attach the screws and upper retaining member.**



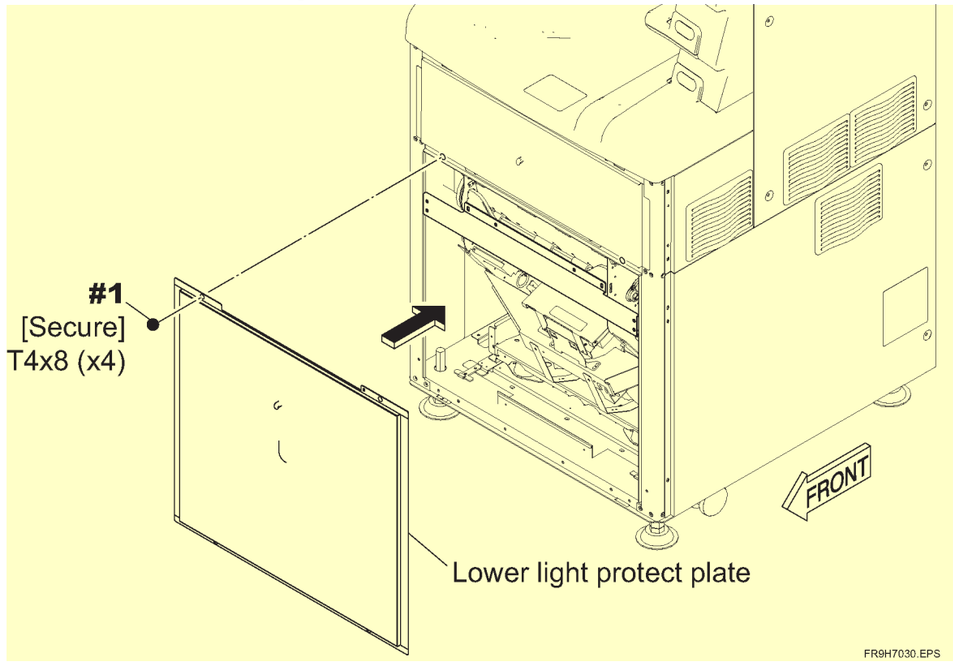
◆ ***INSTRUCTION*** ◆

When the "both-side cassette identification barcode reader" is to be installed to prevent wrong insertion of a cassette, see "Appendix 4 Setting the Both-Side Cassette Identification Barcode Reader"

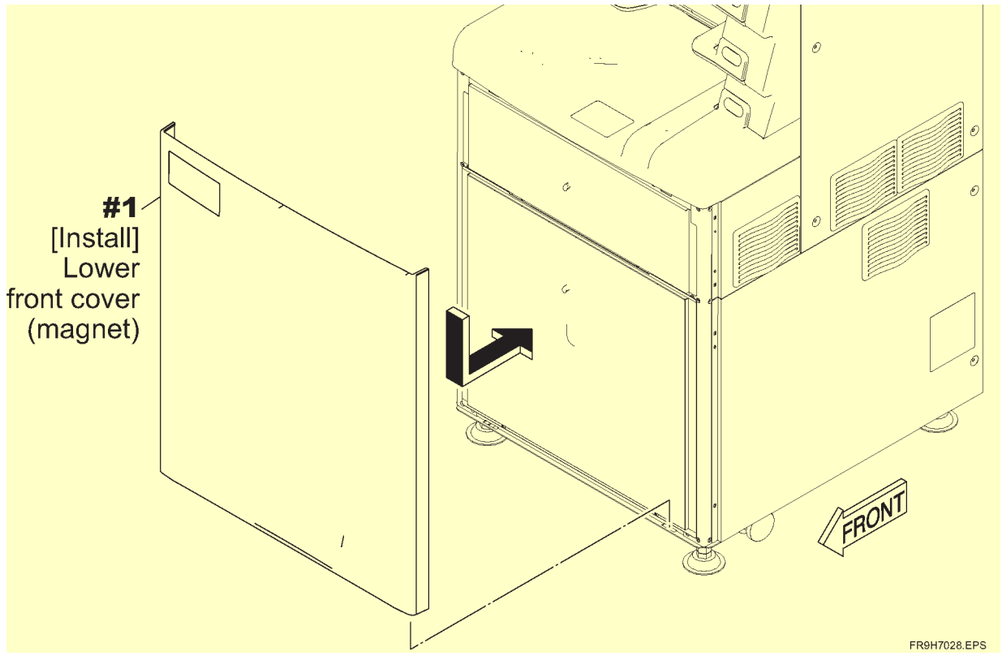
☞ *{IN: Appendix 4._Setting the Both-Side Cassette Identification Barcode Reader}*

4.4 Installing the Cover

1. **Install the lower light protect plate.**



2. **Install the front cover.**



5. Connecting the Cables

5.1 Connecting the Power Cable and Checking Resistance Value

⚠ CAUTIONS

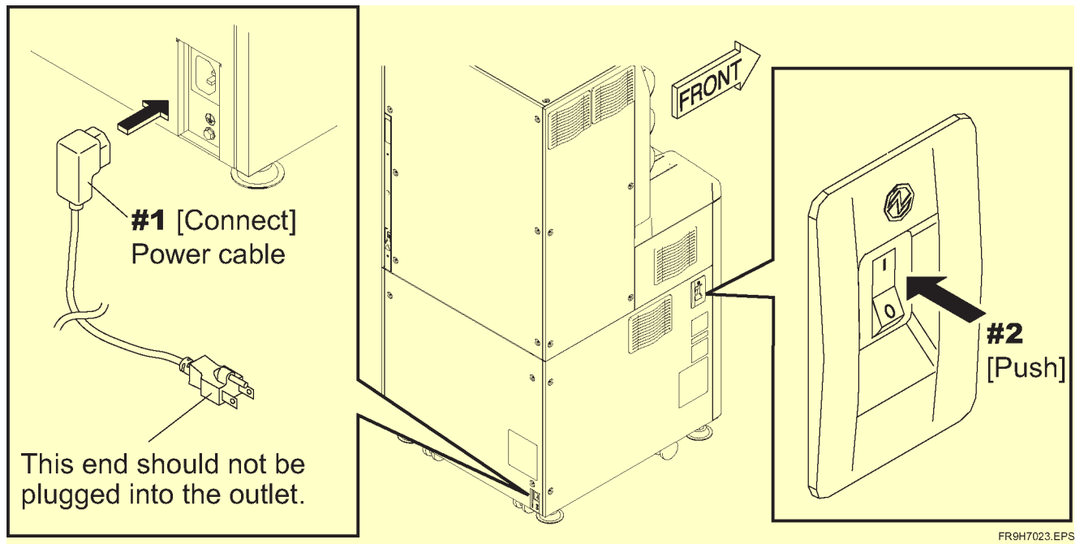
- ***Before measuring the resistance value, make sure that the power plug is unplugged from the outlet.***
- ***If the machine is to be installed in the patient environment, see "APPENDIX 1. ADDITIONAL PROTECTIVE GROUNDING."***

  ☞ *{IN:APPENDIX 1._ADDITIONAL PROTECTIVE GROUNDING}*
- ***If the power cable is to be locally prepared, be sure to use a power cable that complies with the requirements stated below.***

  <For the U.S. and Canada>
  UL-listed detachable power cable
  Hospital Grade plug
  Cable wire diameter : 16 AWG or larger, 3-conductor
  Rated voltage: 125 VAC or higher
  Cable type: SJT
  Cable length: 3 m or shorter

  <For Europe>
  Cable certified by a country in which the machine is to be installed
  Cable wire diameter: 1.0 mm2 or larger, 3-conductor
  Rated voltage: 250 VAC or higher
  Cable type: H05VV-F
  Cable length: 3 m or shorter

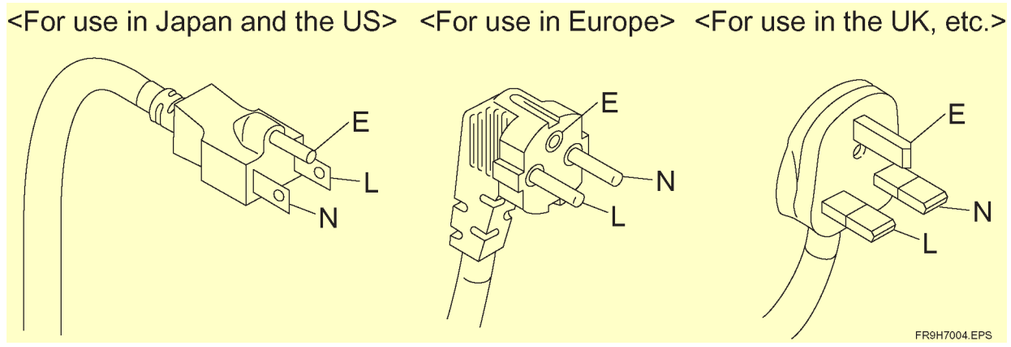
1. **Connect the power cable to the machine, and place the breaker switch in the ON position.**



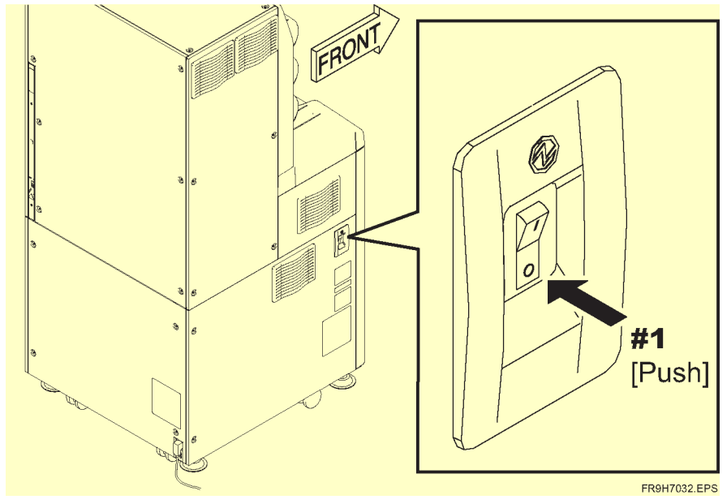
2. **Measure the resistance value of the power cable.**

(Reference value)

Terminal	L - N	L - E	N - E
Resistance value	100k Ω -	∞	∞



3. **Place the breaker switch in the OFF position.**



5.2 Connecting the Interface Cable

CAUTION

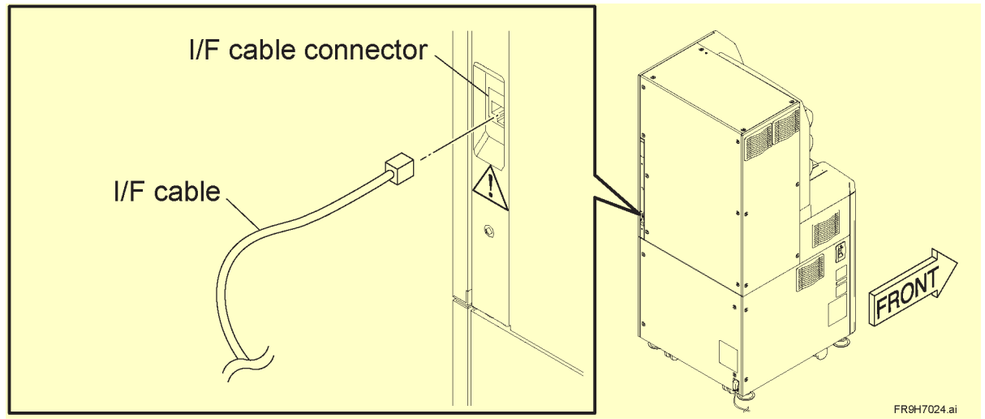
A telephone cable should not be plugged into the I/F cable connector.
The type of cable compatible with this machine is an IEC950/UL1950-listed cable only.

◆ NOTE ◆

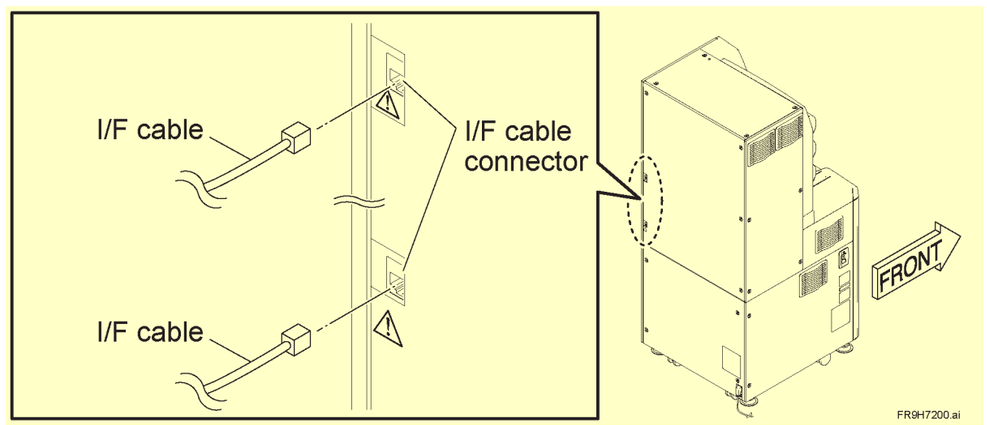
For the I/F cable, only the straight cable of UTP type should be used.

1. Connect the I/F cable to the I/F cable connector of the machine.

- Without remote power controller (option)



- With remote power controller (option)

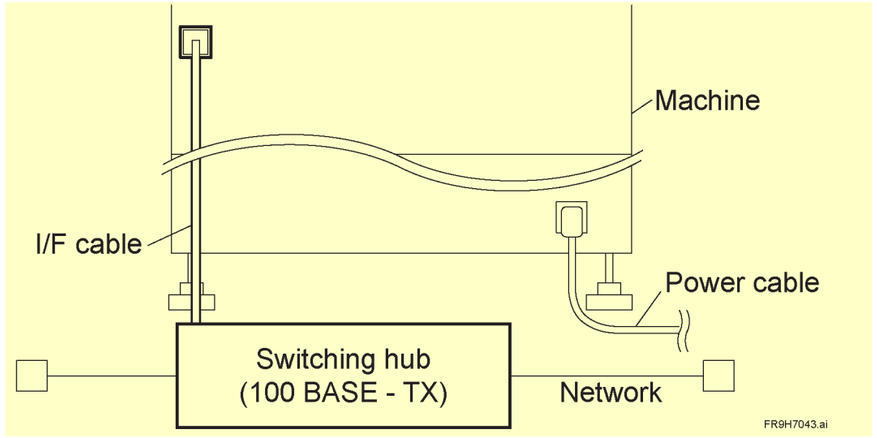


2. Connect the I/F cable to the switching hub.

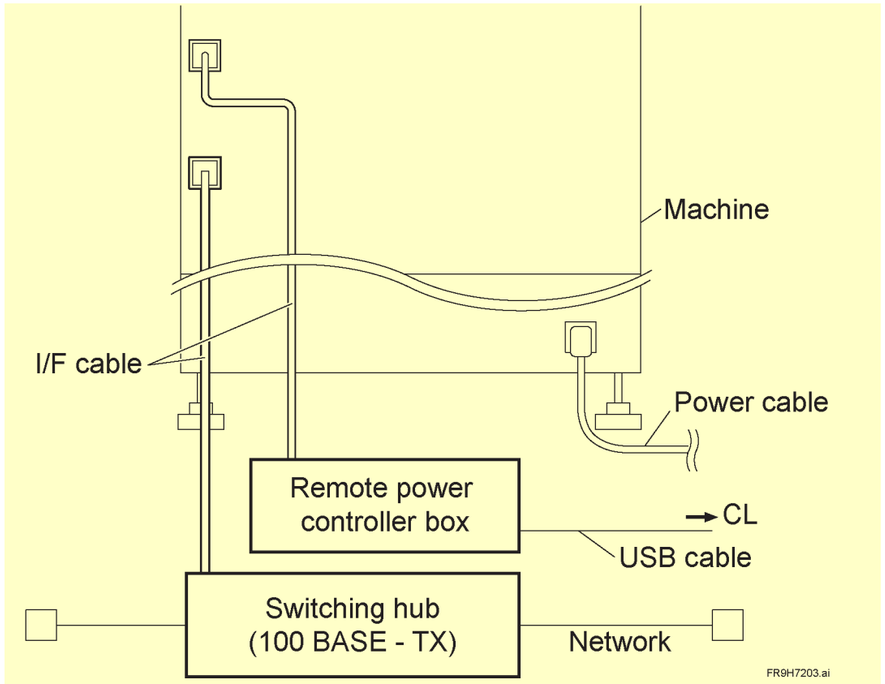
CAUTION

Only device evaluated to IEC/UL60905-1 can be used.

- Without remote power controller (option)



- With remote power controller (option)



6. Final Placement

For final placement of the machine, check the requests of the user, and observe the procedures described below to secure the machine and cables in place.
When the machine is to be secured by use of the anchor nuts, see "Appendix 4. Securing the Machine with the Anchor Nuts"

6.1 Securing the Cable

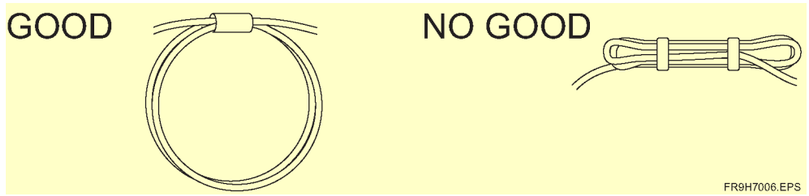
⚠ CAUTION

If the machine is to be installed in the patient environment, see "APPENDIX 1. ADDITIONAL PROTECTIVE GROUNDING."

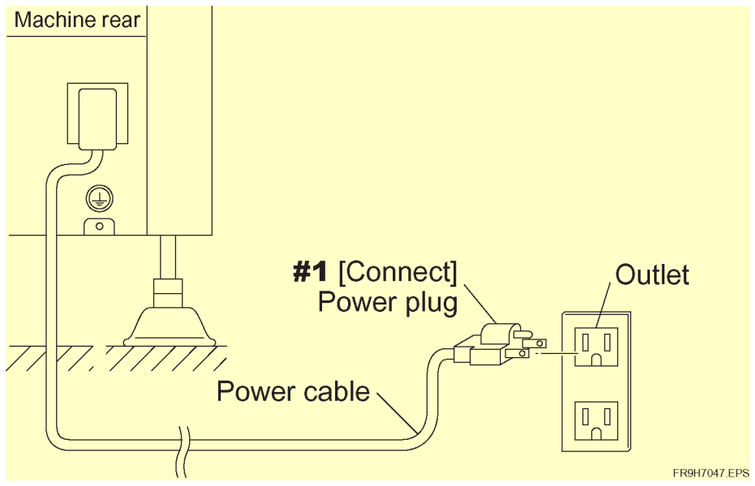
☞ *{IN:APPENDIX 1._ADDITIONAL PROTECTIVE GROUNDING}*

⚠ CAUTION

Do not tie or bundle the power cable in such a manner that it is overloaded.



1. **Plug the power cable into the outlet.**



6.2 Securing the Machine

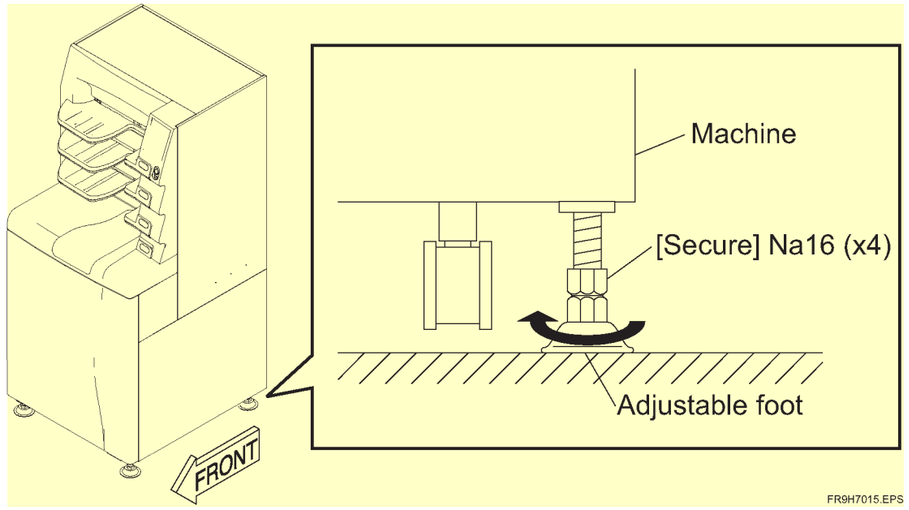
1. **Secure the four adjustable feet down onto the floor.**

◆ ***NOTE*** ◆

When securing the adjustable feet, pay attention to the following points.

- *The four adjustable feet should be evenly loaded.*
  However, if there is too little space on the right and left sides in the machine installation place to secure the adjustable feet on the rear side, the two adjustable feet on the front side should be secured in place. In this case, the two adjustable feet and two casters should be evenly loaded.
- *When the adjustable feet are secured, the casters should be detached from the floor.*

2. **Secure the adjustable feet.**



7. CL Installation Procedures

1. Perform the CL installation procedures.

◆ ***NOTE*** ◆

Complete "7. CL Installation Procedures" before performing the procedures described in "8. Installing RU Software."

☞ {FCR XG-1/CR CL Service Manual}

8. Installing RU Software

◆ ***INSTRUCTION*** ◆

If the OS of CL is Windows Vista, confirm the followings before installation.
- *The version of PC-TOOL is V4.0 or later.*
- *The UAC (User Account Control) is set to OFF. If the UAC is set to ON, set it to OFF, install the PC-TOOL, and install the RU software. After performing the procedures above, set back UAC to On again.*

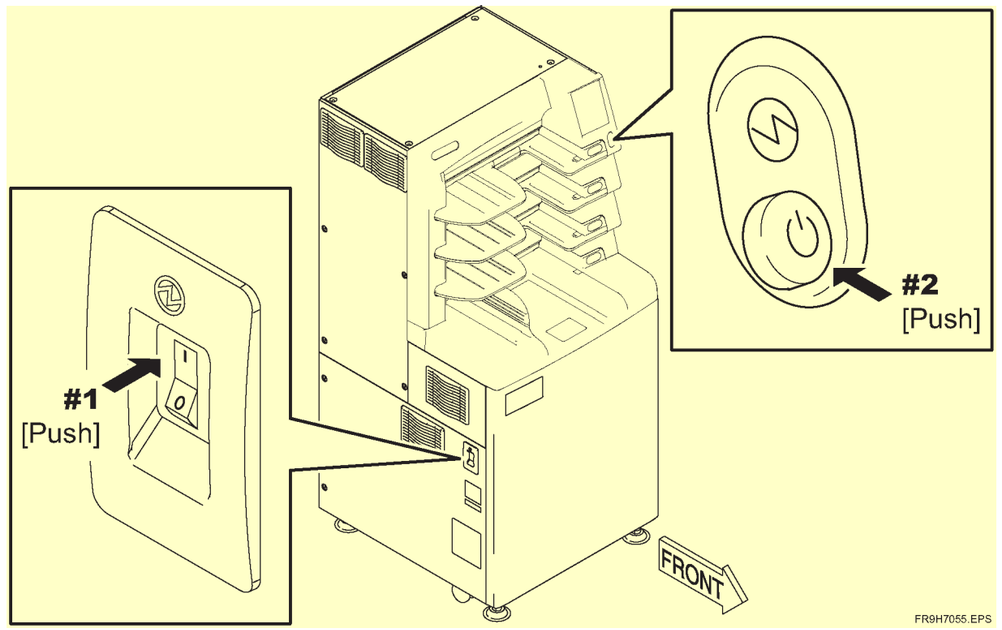
◇ *REFERENCE* ◇

This chapter describes the procedures, by way of example, where settings are made as follows:
IP address of the RU : 172.16.1.11
IP address of the CL : 172.16.1.21

8.1 Setting the IP Address of the RU

1. Turn ON the power of the CL.

2. Turn ON the power of the RU.



3. Place the RU in the Maintenance Mode.

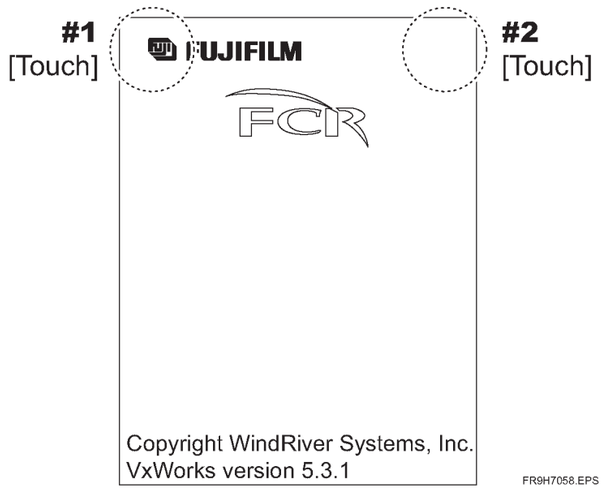
After the main screen appears, sequentially touch the upper left and upper right corners of the touch panel.

◆ ***NOTE*** ◆

Because the IP address of the FTP server has not been set yet, it takes about three minutes until the main screen appears.

◇ *REFERENCE* ◇

If your touch is accepted by the panel, a "beep" alarm sound is generated.



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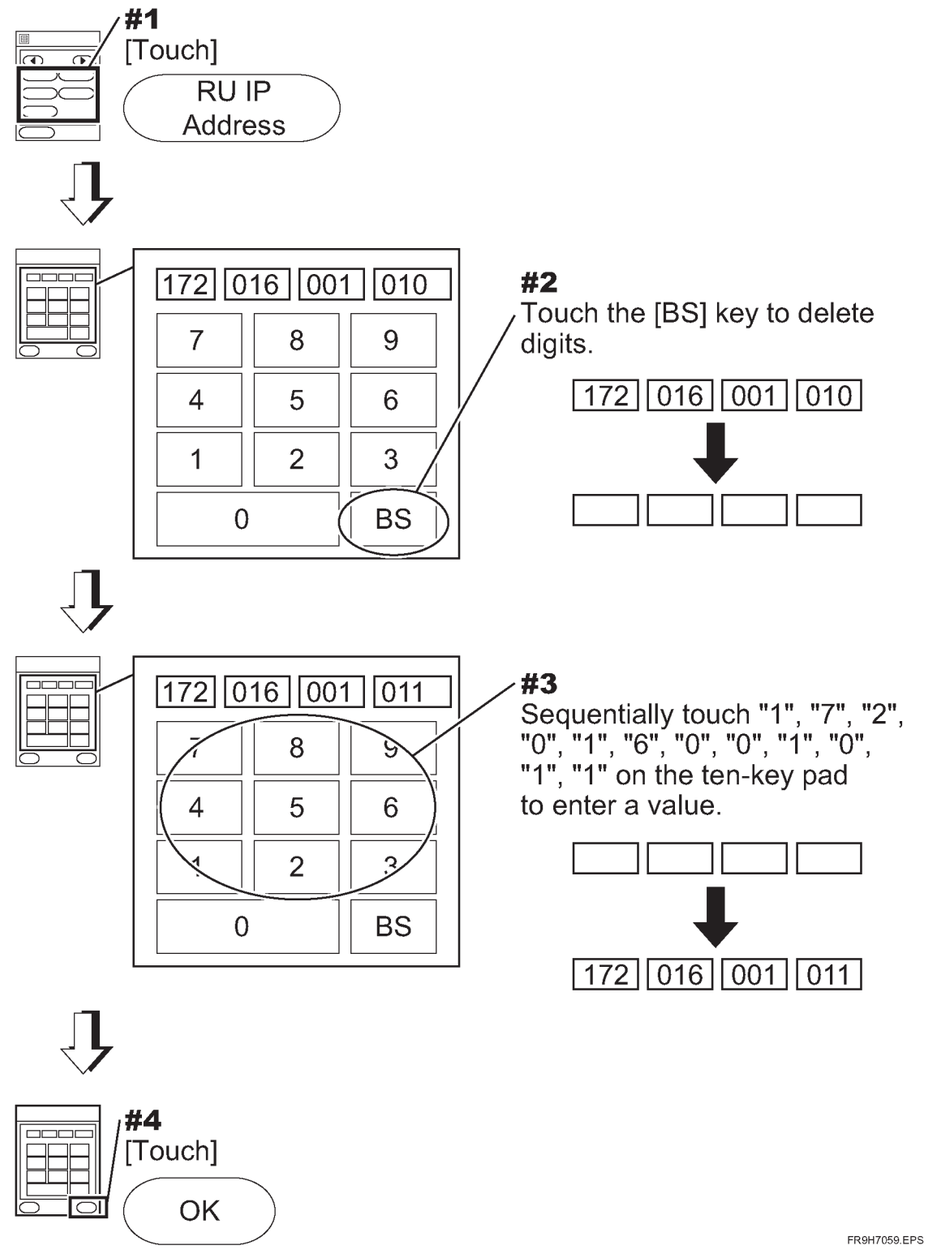
◆ ***INSTRUCTION*** ◆

If you cannot put the RU into the Maintenance Mode, turn OFF the power of the RU and then reboot the RU all over again.

4. Set the IP address of the RU.

◆ ***NOTE*** ◆

Enter the IP address of the RU that is set in the CL.

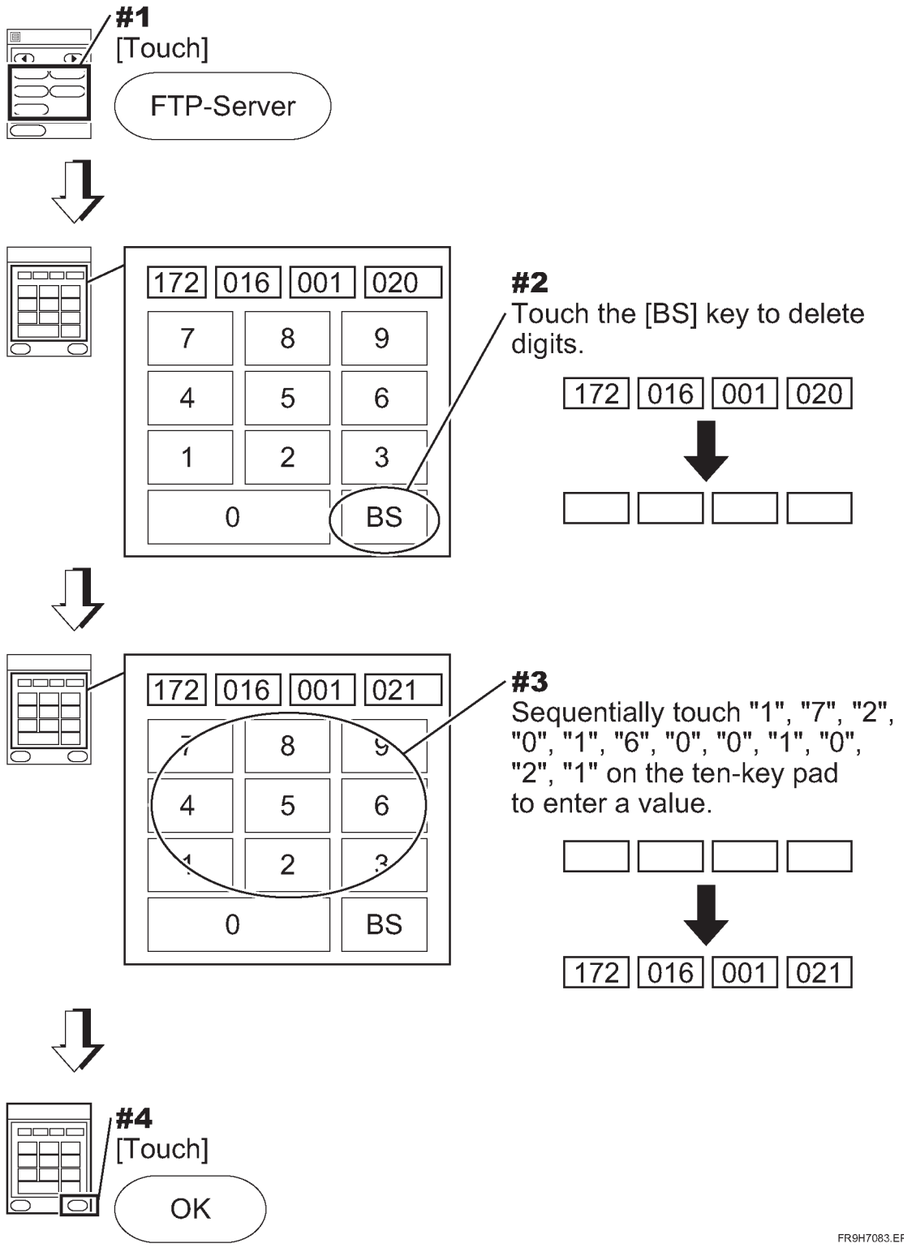


FR9H7059.EPS

5. **Set the IP address of the FTP server.**

◆ ***NOTE*** ◆

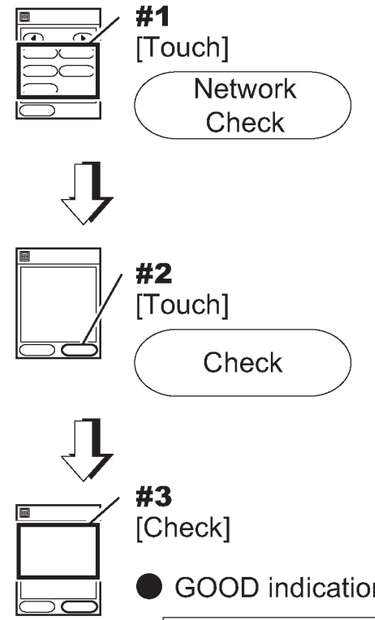
Enter the IP address of the CL.



FR9H7083.EPS

8.2 Setting the CL and Checking Connection

1. **Execute "Network Check".**



● GOOD indication

FTP Server	OK
Default Gateway	OK or Not in Use

● NO GOOD indication

FTP Server	Error
Default Gateway	Error

FR9H7060.EPS

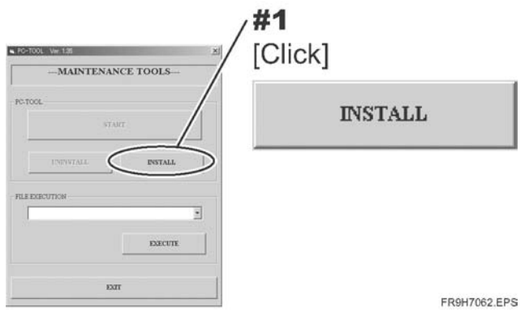
◆ ***NOTE*** ◆

In the case of "NO GOOD" indication

☞ *{Troubleshooting}*

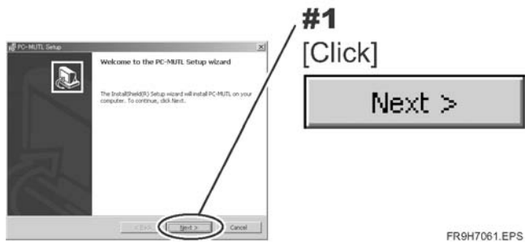
8.3 Installing Setup PC-TOOL

1. **Put the Install CD-ROM into the CD-ROM drive of the CL.**
2. **Click on [INSTALL].**



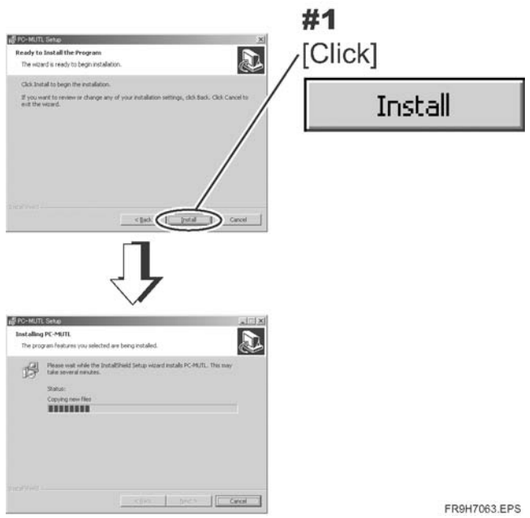
FR9H7062.EPS

3. **Click on [NEXT].**



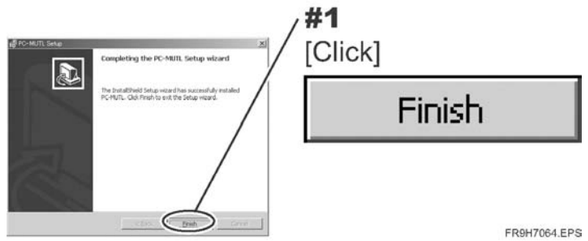
FR9H7061.EPS

4. **Click on [Install].**



FR9H7063.EPS

5. **When Install is completed, click on [Finish].**



FR9H7064.EPS

◆ ***NOTE*** ◆

The step 6 need not be carried out when the CL has been rebooted after the CL's IP address is changed during "7. CL Installation Procedures". Proceed to "8.4 RU/CL Software Setup Checkpoints".

6. **Reboot the CL.**

8.4 RU/CL Software Setup Checkpoints

◆ *NOTE* ◆

If it is necessary to check the setup of the RU/CL software, perform the checking procedures in accordance with the table below.

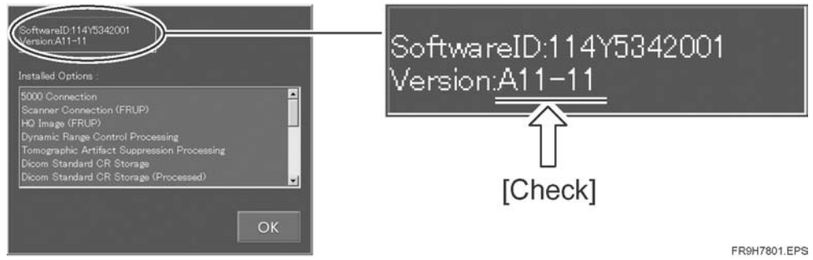
	Checkpoints	Refer to
1	Checking the CL Software Version	☞{IN:8.4.1}
2	Checking Configuration of the CL - 1	☞{IN:8.4.2}
3	Checking Configuration of the CL - 2	☞{IN:8.4.3}
4	Checking Configuration of the CL - 3	☞{IN:8.4.4}
5	Checking Configuration of the CL - 4	☞{IN:8.4.5}
6	Checking FTP of the CL - 1	☞{IN:8.4.6}
7	Checking FTP of the CL - 2	☞{IN:8.4.7}
8	Checking Setup of the RU	☞{IN:8.4.8}

◇ *REFERENCE* ◇

All the CL software settings to be checked must be for the master CL.

8.4.1 Checking the CL Software Version

1. Make sure that the CL software version is "A11-11" or later.

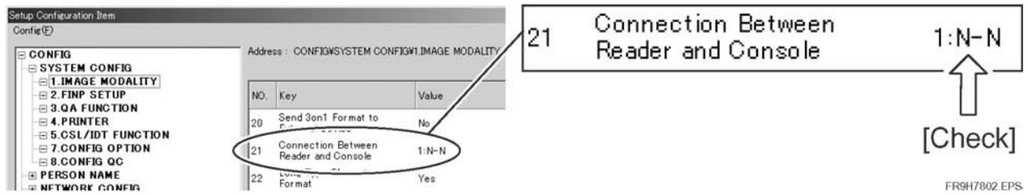


8.4.2 Checking Configuration of the CL - 1

1. On the Setup Configuration Item screen, make sure that "CONFIG" → "1. IMAGE MODALITY" → "21. Connecting Between Reader and Console" is "1:N-N".

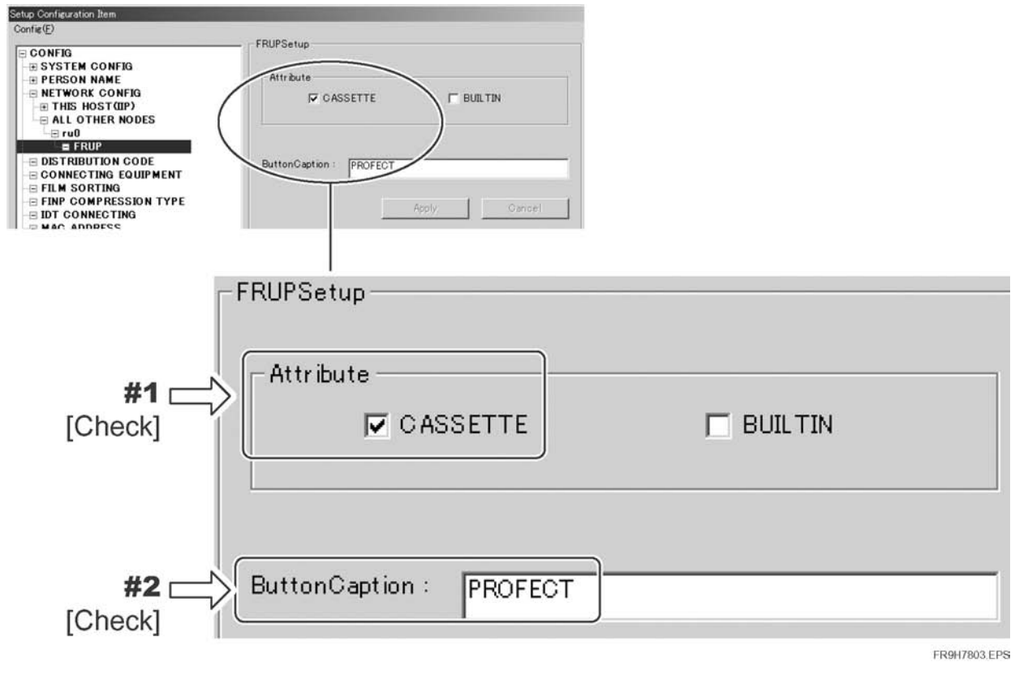
◆ ***NOTE*** ◆

If the setting is "0:1-1", the machine does not convey the IP and logs error code "11510" because the setting is out of the machine specification.



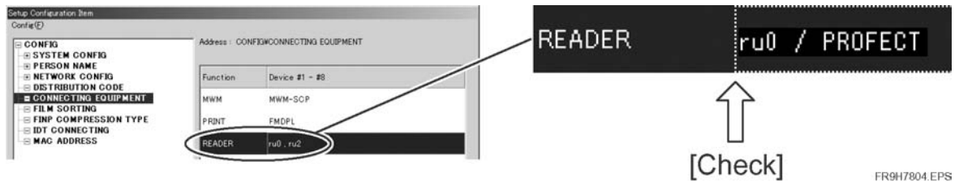
8.4.3 Checking Configuration of the CL - 2

1. On the Setup Configuration Item screen, navigate "CONFIG" → "NETWORK CONFIG" → "ALL OTHER NODES", and make sure that the "FRUP Setup" settings of the RU installed are as follows.



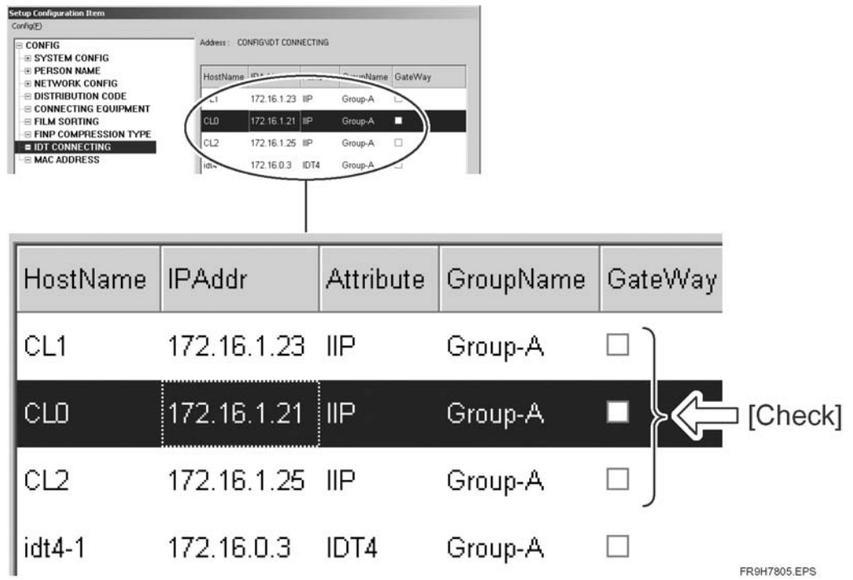
8.4.4 Checking Configuration of the CL - 3

1. **On the Setup Configuration Item screen, navigate "CONFIG" → "CONNECTING EQUIPMENT", and make sure that the RU has been registered in the "READER" attribute.**



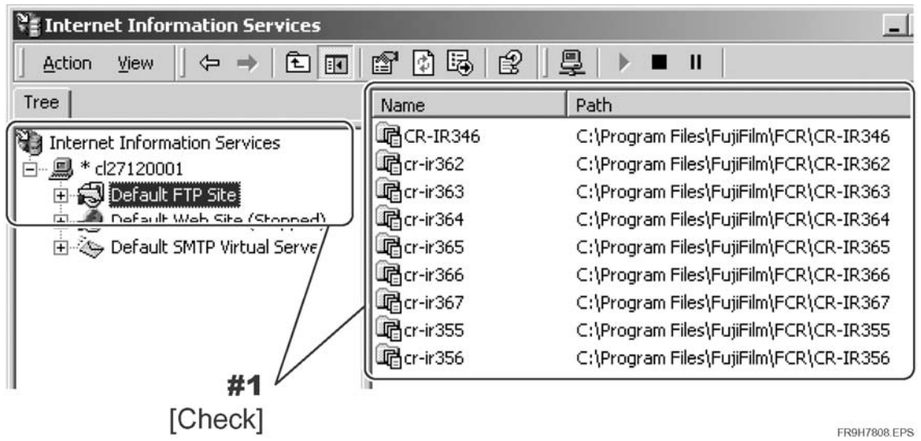
8.4.5 Checking Configuration of the CL - 4

1. **If multiple CL's are registered and image reading is performed with a specific RU, make sure that the CL has been set to "IDT CONNECTING".**



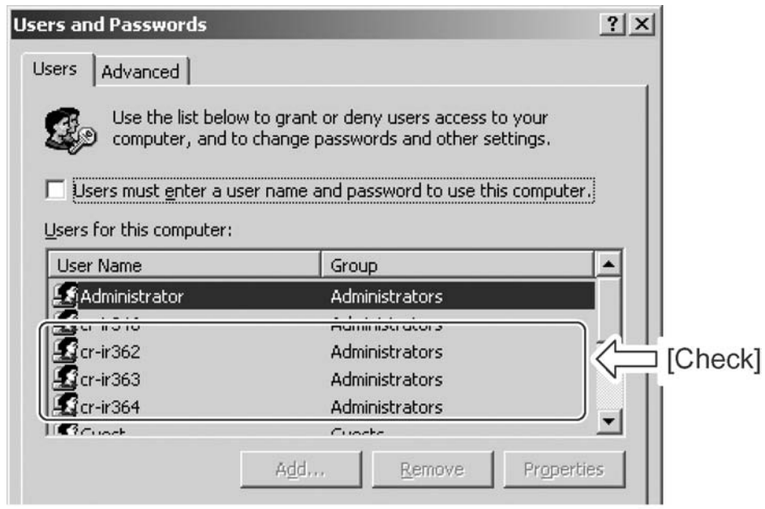
8.4.6 Checking FTP of the CL - 1

1. From the "Start" menu of Windows, navigate "Settings" → "Control Panel" → "Administrative Tools" → "Internet Service Manager", and click on "Default FTP Site" of "Internet Information Services" to make sure that virtual directories have been created for respective RU's and their paths have been specified.



8.4.7 Checking FTP of the CL - 2

1. From the "Start" menu of Windows, navigate "Settings" → "Control Panel" → "Users and Passwords", and make sure that user names and passwords have been set to allow the RU to automatically access the FTP.



8.4.8 Checking Setup of the RU

1. Check "IP Address of the RU" and "IP Address of the FTP Server" that have been set in the RU.

◆ ***NOTE*** ◆

With reference to "8.1 Setting the IP Address of the RU", check the "IP Address of the RU" and "IP Address of the FTP Server" that have been set in the RU.

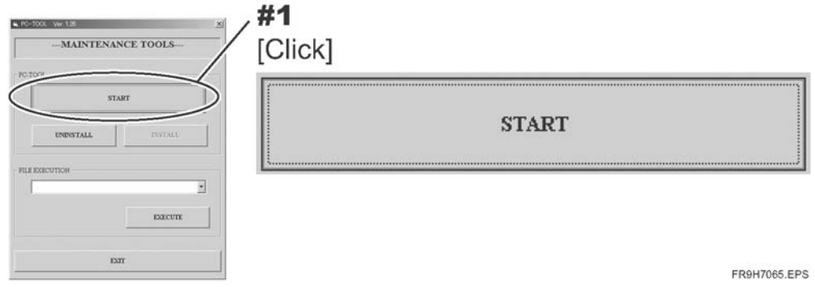
☞ *{IN:8.1_Setting the IP Address of the RU}*

8.5 Installing RU Software

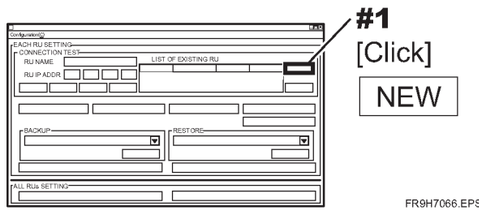
◇ *REFERENCE* ◇

This section describes the procedures, by way of example, where settings are made as follows:
INSTALL VERSION: 1.1
LANGUAGE: Japanese
BRAND TYPE: JAPAN (FMS)

1. Click on [START].



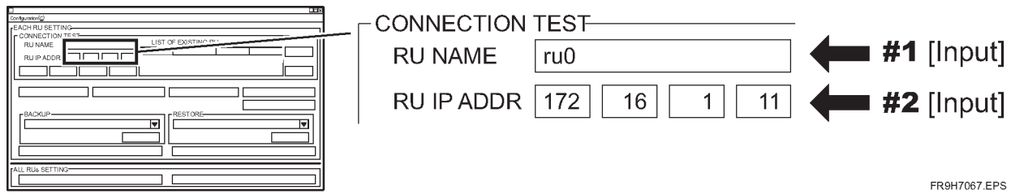
2. Click on [NEW].



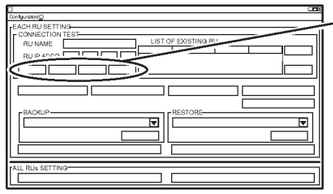
3. Enter Install "RU NAME" and "RU IP ADDR".

◆ ***NOTE*** ◆

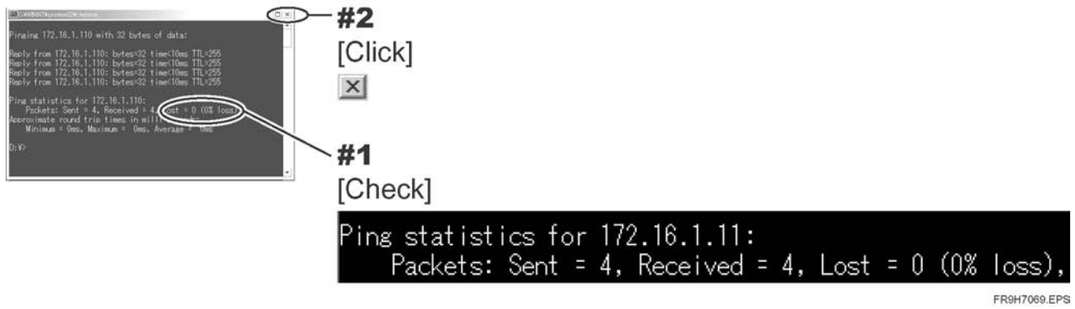
The IP address of the RU that is set in the CL should be entered.



4. **Click on [PING].**



5. **Check the result of PING, and click on ☒ to close the window.**



- [GOOD indication]

  The result is normal when the following message appears.
  | Ping statistics for 172.16.1.11: |
  | Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), |

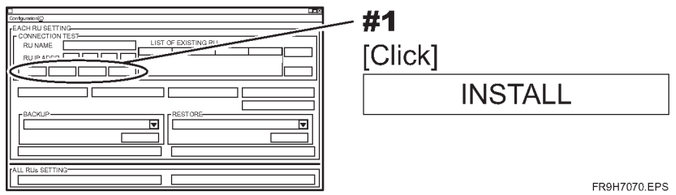
- [NO GOOD indication]

  Other than above.

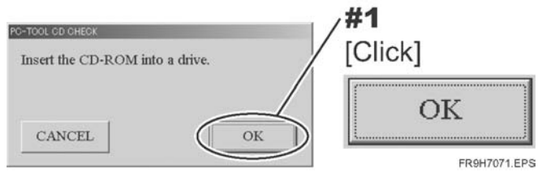
◆ ***NOTE*** ◆

In the case of "NO GOOD" indication
☞ *{Troubleshooting}*

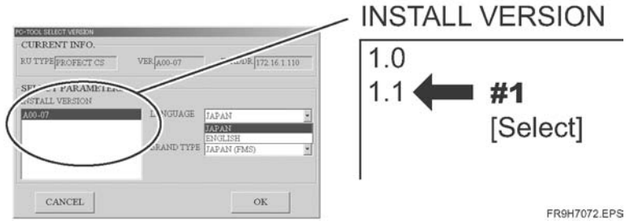
6. **Click on [INSTALL].**



7. **Click on [OK].**



8. **Select "INSTALL VERSION".**

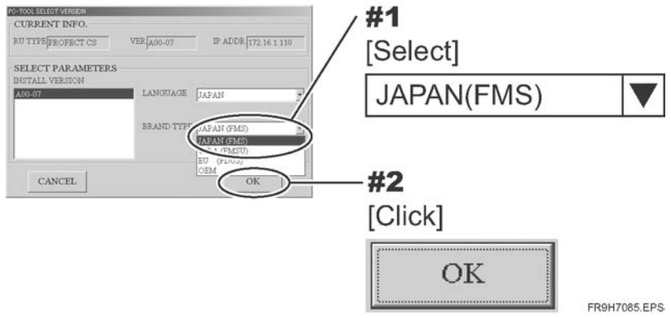


9. **Select "LANGUAGE".**

◇ *REFERENCES* ◇

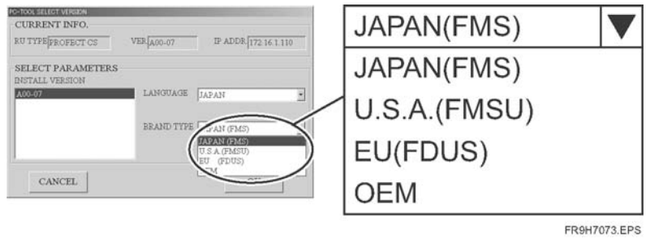
- *When the employed software version is 1.2 or later, all the languages are selectable.*
- *When the employed software version is 1.1 or earlier, the selectable languages are limited to “Japanese” and “English”.*

10. Select "BRAND TYPE" and click on [OK].



◇ *REFERENCES* ◇

- *For "BRAND TYPE", either "JAPAN", "U.S.A.", "EU", or "OEM" may be selected.*

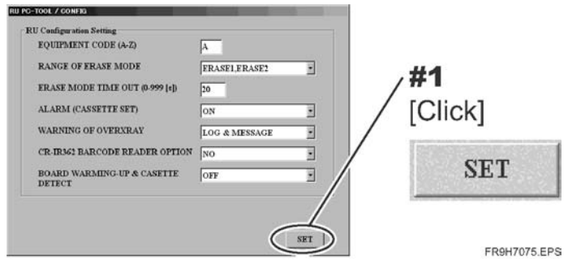


- *"RU TYPE" is automatically changed, depending on "BRAND TYPE" selected.*

11. Click on [SET].

CAUTION

The warm-up function and the dummy cassette detection function are available as an option for only the units used in Japan. If the machine is used outside Japan, always set to "OFF".



◇ *REFERENCE* ◇

If, for instance, the institution wishes to use nondefault CONFIGURATION information, edit the CONFIGURATION information by performing the procedure set forth under "4.3.12 EDIT CONFIGURATION" in the Maintenance Utility volume.

☞ *{MU:4.3.12_EDIT CONFIGURATION}*

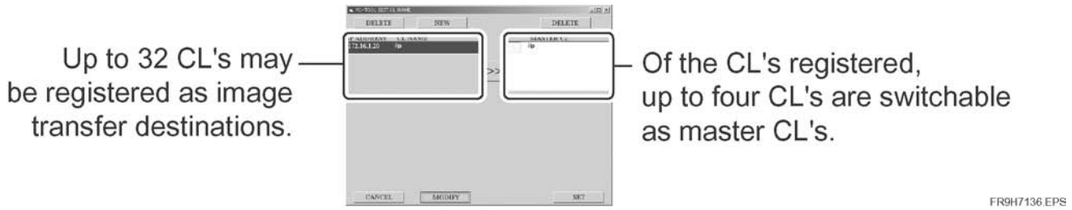
12. Set "IP ADDRESS" and "CL NAME".

◆ *INSTRUCTION* ◆

Enter IP ADDRESS of the CL to be connected with the RU.

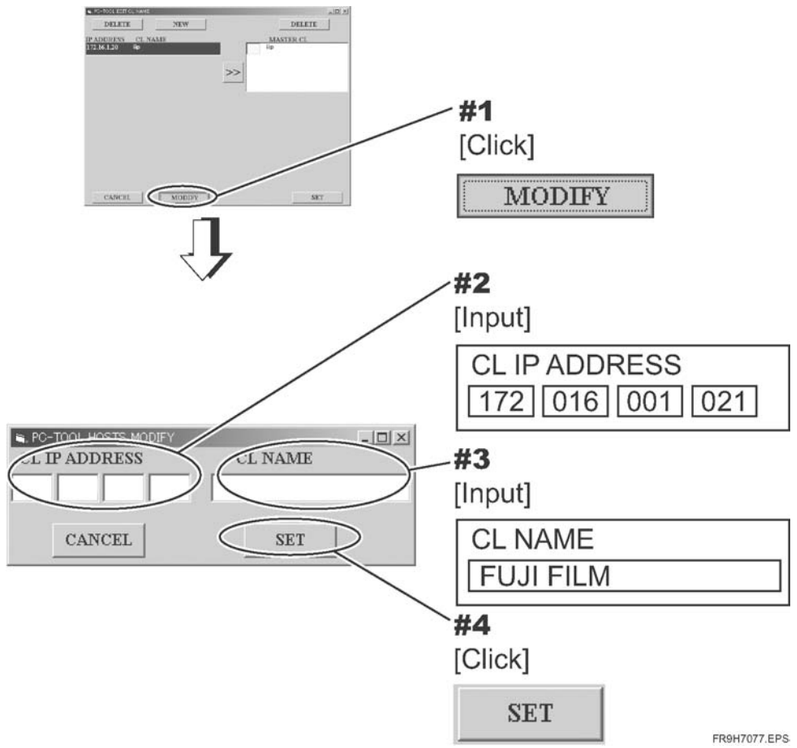
◇ *REFERENCES* ◇

- *For "CL NAME", any name (20 bytes: 20 alphanumeric characters, or 10 Kanji characters) may be entered.*
- *Up to 32 CL's may be registered as image transfer destinations. Of the CL's registered, up to four CL's are switchable as master CL's.*


Up to 32 CL's may be registered as image transfer destinations.
Of the CL's registered, up to four CL's are switchable as master CL's.
FR9H7136.EPS

For more detail about the function that may be set on the "EDIT CL NAME" screen, see "4.3.13 EDIT CL NAME" of the Maintenance Utility volume.

☞ *{MU:4.3.13_EDIT CL NAME}*



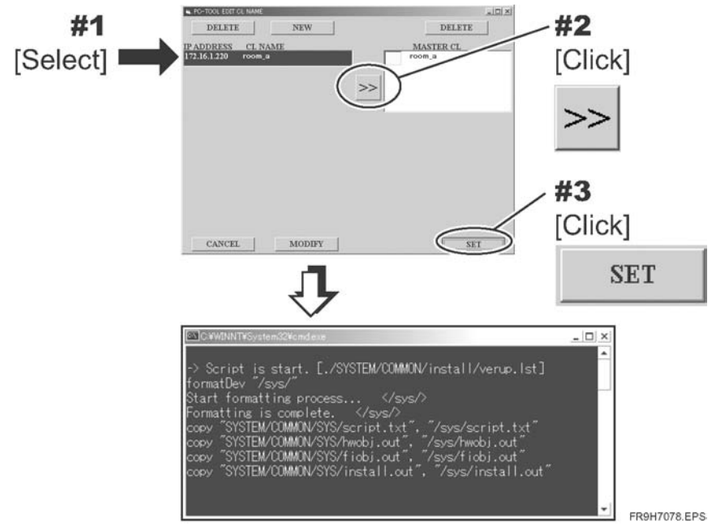
13. Confirm the installation precautions.

⚠ *CAUTIONS*

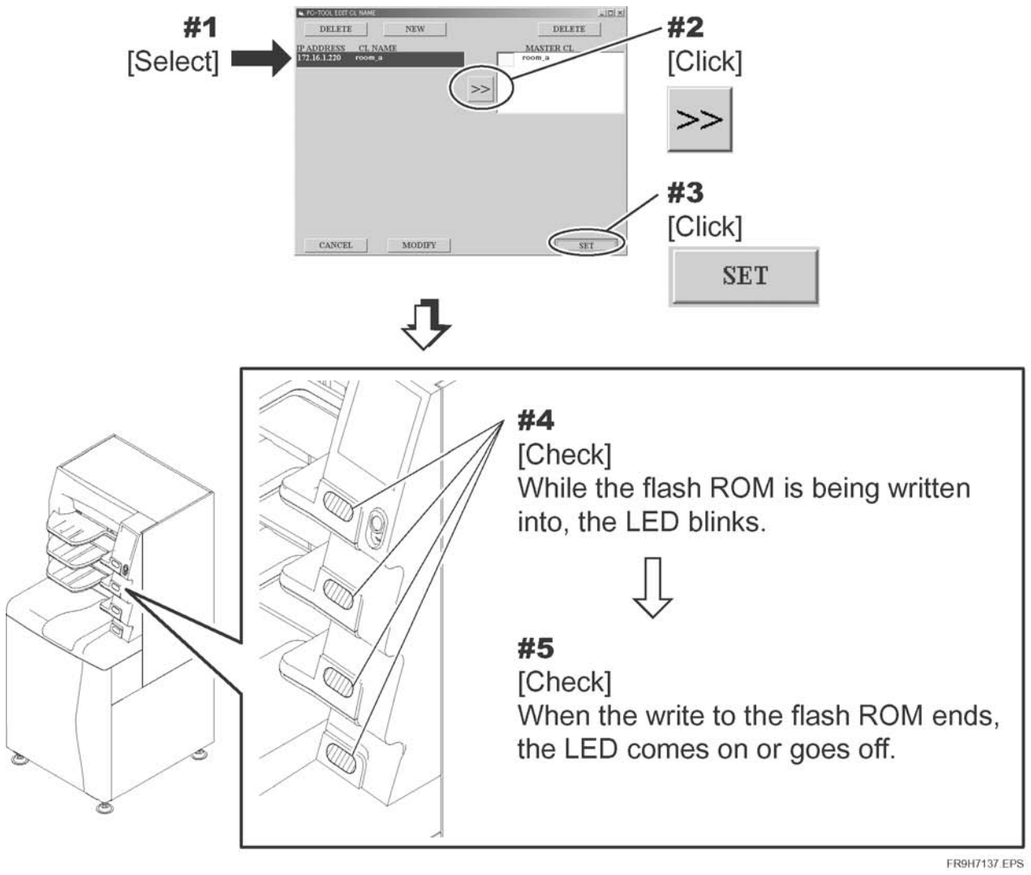
- ***While data is being written into the FLASH ROM, never turn OFF the power of the RU. If the power of the RU is turned OFF, the program residing in the memory is corrupted, so that the RU cannot be rebooted.***
- ***The post-installation checkout procedure varies with the version of the RU software. Before installation, confirm the version of the RU software that is installed in the flash ROM on the IMG board.***

14. Click on [SET].

- When the version of the RU software installed in the flash ROM on the IMG board is 1.3 or earlier



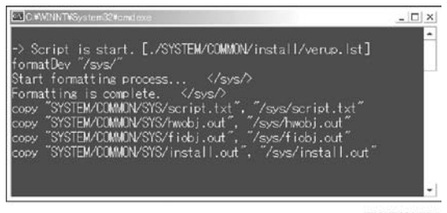
- When the version of the RU software installed in the flash ROM on the IMG board is 1.4 or later



FR9H7137.EPS

◇ *REFERENCE* ◇

The installation process screen appears on the CL display.



FR9H7138.EPS

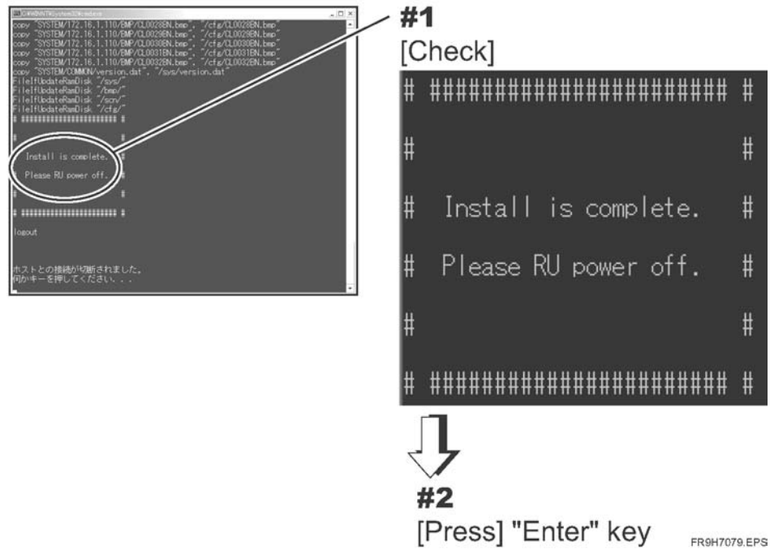
15. Verify that writing into the FLASH ROM has been completed, and press the [Enter] key.

◆ ***NOTE*** ◆

The following screen may fail to open due to an application error. If the following screen does not appear on the display, wait about 10 minutes after the click of [OK] in step 14, and then press the [Enter] key.

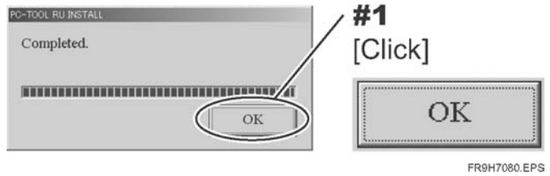
◇ *REFERENCE* ◇

Writing into the FLASH ROM will take about four minutes.



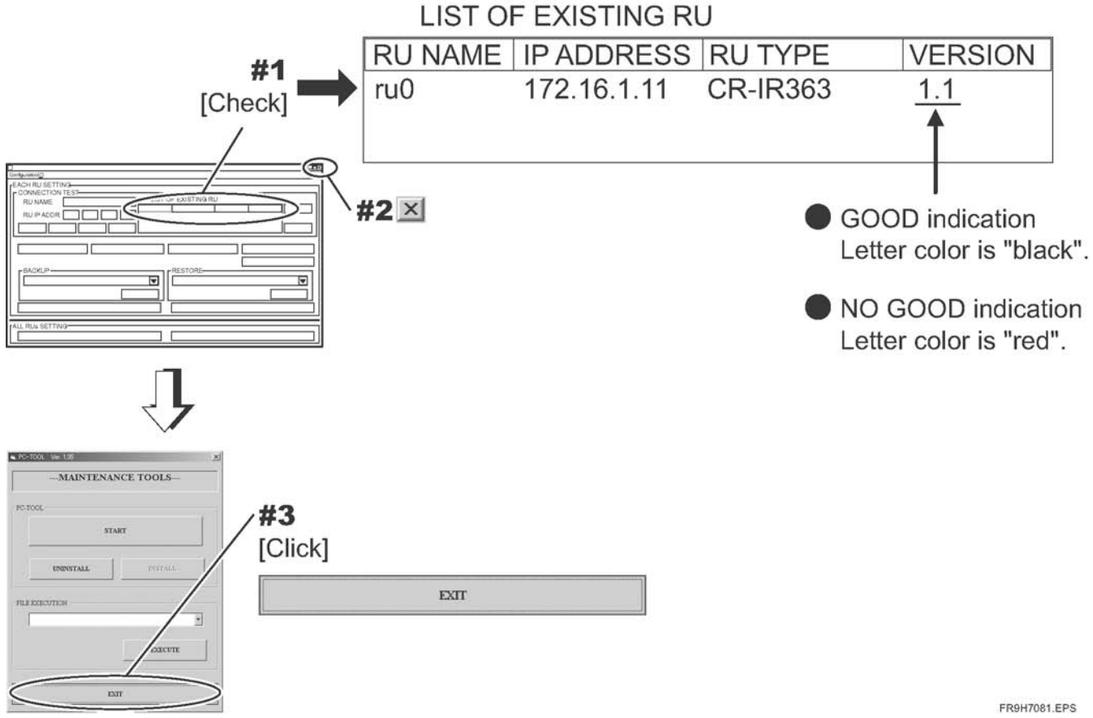
FR9H7079.EPS

16. Click on [OK].



FR9H7080.EPS

17. **Check the version of the RU software, and close Setup PC-TOOL.**

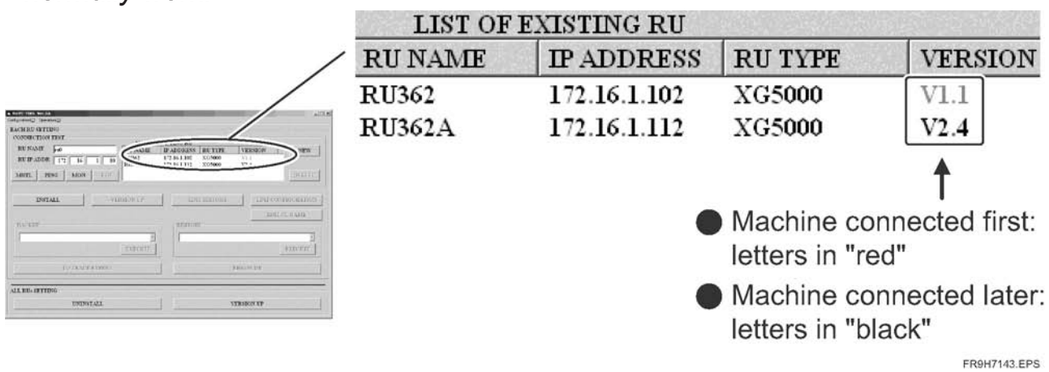


18. **Turn OFF the power of the RU.**

19. **Turn ON the power of the RU.**

◆ *NOTES* ◆

- *In the case of "NO GOOD" indication, return to step 1 and perform install procedures all over again.*
- *When the XG2000 and the XG5000 are connected with a single CL concurrently, the "VERSION" of the RU software appearing on the RU PC-TOOL of the machine first connected appears in red as shown below. Shown below is an example where the XG2000 is first connected, and then the XG5000 is connected. Even if the version appears in red, the machine will normally work.*



- *"RU TYPE" of the XG2000 on the RU PC-TOOL is displayed as "XG5000" or "XG5000/XG2000".*

9. Image/Conveyance Checks

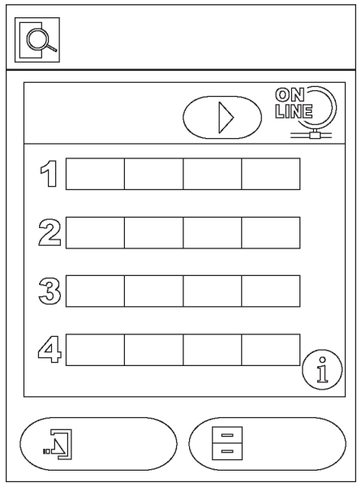
In this section, the following checks are made as last-time verification for final placement.
- Conveyance checks
- Image checks

9.1 Check Before Procedures

◆ *NOTES* ◆

- *For the IP used for image/conveyance checks, an IP of the maximum size used in the hospital should be employed.*
- *Make sure that the IP to be used does not contain any important image data exposed.*

1. **Check to ensure that the "READY" screen appears.**



FR9H7118.EPS

2. **Perform "Secondary Erasure" on the spontaneous radiation and image accumulated on the IP to be used.**

☞ {Instruction Manual}

3. **Perform IP exposures.**

◆ *NOTE* ◆

Be sure to expose the IP under the following X-ray tube voltage condition. Otherwise, the resulting image could not be checked properly.
For the tungsten X-ray tube: 80 kV
For the molybdenum X-ray tube: 25 kV

◆ *INSTRUCTIONS* ◆

- *Expose two IPs of maximum sizes for each of the IP types (ST/HR type and HR-BD type) used at the institution, with the following doses.*
- *With the X-ray tube, the first IP should be exposed in a normal orientation, and the second in a 180-degree upside-down orientation.*
- *When the "HR" IP is used in conjunction with the molybdenum X-ray tube, the IP should be exposed under conditions of "● "For "HR-BD" IP."*

● For "ST/HR" IP

- X-ray tube: Tungsten X-ray tube
- Exposure X-ray dose: 1 mR
- Maximum size: IP of 14"x14" (35cm x 35cm) or 14"x17" (35cm x 43cm) size
- Reference conditions: Distance 1.8 m
  Voltage 80 kV
  Amperage 50 mA
  Time 0.013 sec

● For "HR-BD" IP

- X-ray tube: Molybdenum X-ray tube
- Exposure X-ray dose: 20 mR
- Maximum size: IP of 18"x24" HR-BD or 24"x30" HR-BD size
- Reference conditions: Distance 0.55 m
  Voltage 25 kV
  Amperage 100 mA
  Time 0.053 sec

9.2 Image/Conveyance Checks

◆ *NOTE* ◆

Because the "MENU" and so forth differ depending on the IP type, image checks should be performed with the "MENU" specified below.

1. Using menus "TEST", "Image Format" or "Image Format-2", and "SINGLE", record the IP exposed at "9.1 Check Before Procedures", and generate an image output.

◆ *INSTRUCTION* ◆

For IP type HR-BD, when the image menu is to be registered, the HQ flag should be set in the "Exposure Parameter Detail Setting".

2. Check the S value.

◇ *REFERENCE* ◇

Reference values for S depending on the X-ray dose:

- *For IP type ST (tungsten X-ray tube)*
  - *For 0.1 mR: The S value is 2000.*
  - *For 1 mR: The S value is 200.*
  - *For 10 mR: The S value is 20.*
- *For IP type HR-BD (molybdenum X-ray tube)*
  - *For 2 mR: The S value is 1200.*
  - *For 20 mR: The S value is 120.*
  - *For 200 mR: The S value is 12.*

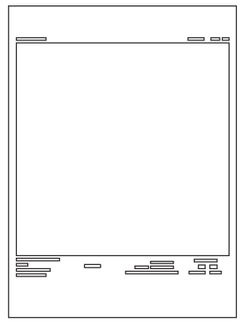
3. Verify that there is no "unusual nonuniformity" found on the output film or on the image displayed on the image monitor.

◆ *CHECK* ◆

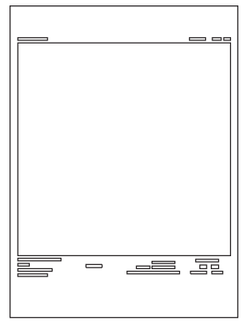
There should be no uneven density difference in the main scan direction.

If there is any uneven density difference, compare the films outputted from the two IPs of the same size, and determine whether such nonuniformity is caused by the machine or X-ray tube.

- If there is uneven density difference in the same direction on two films



IP in normal orientation (first IP)

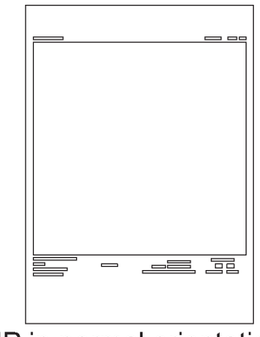


IP in 180-degree upside-down orientation (second IP)

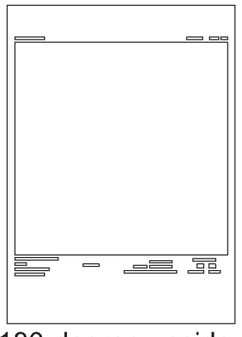
FR9H7119.EPS

→ The machine may be the cause of such nonuniformity.
☞ {Troubleshooting}

- If positions of uneven density difference are different



IP in normal orientation (first IP)



IP in 180-degree upside-down orientation (second IP)

FR9H7120.EPS

→ The X-ray tube may be the cause of such nonuniformity.

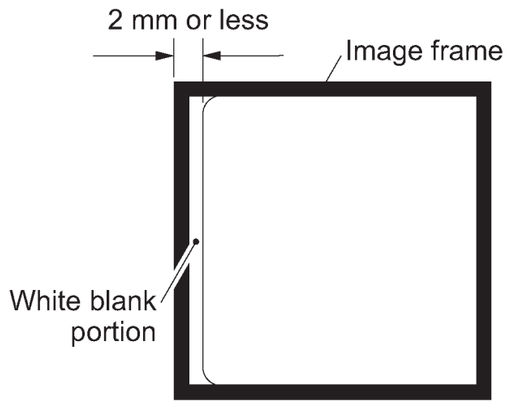
4 Check the image format.

Make sure that the white blank portion is 2 mm or less, as actually measured on the IP, from the outermost edge of the image frame of the film outputted.

◆ ***CHECK*** ◆

The white blank portion should be 2 mm or less.
If anything abnormal is found:

☞ *{Troubleshooting}*



FR9H7121.EPS

◆ ***NOTE*** ◆

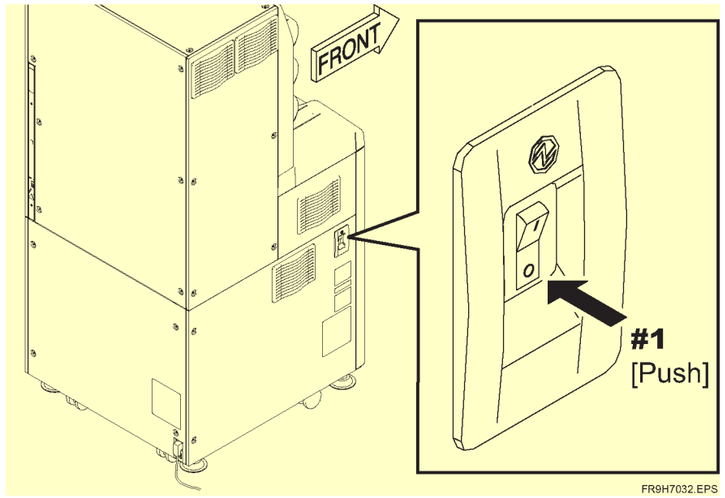
The distance measured on the film may differ from the actual size on the IP, depending on the reading size and film size. The actual size on the IP should be calculated using the distance measured on the film and the reduction factor for the film. Compute the actual size on the IP according to the following equation.

$$\text{Actual size on IP} = \text{Measured value} \times \frac{100}{\text{Reduction factor (\%)}}$$

FR9H7122.EPS

10. Powering OFF the CL/RU

1. **Shut down the system of the CL.**
2. **Shut down the system of the RU.**
3. **Power OFF the RU.**

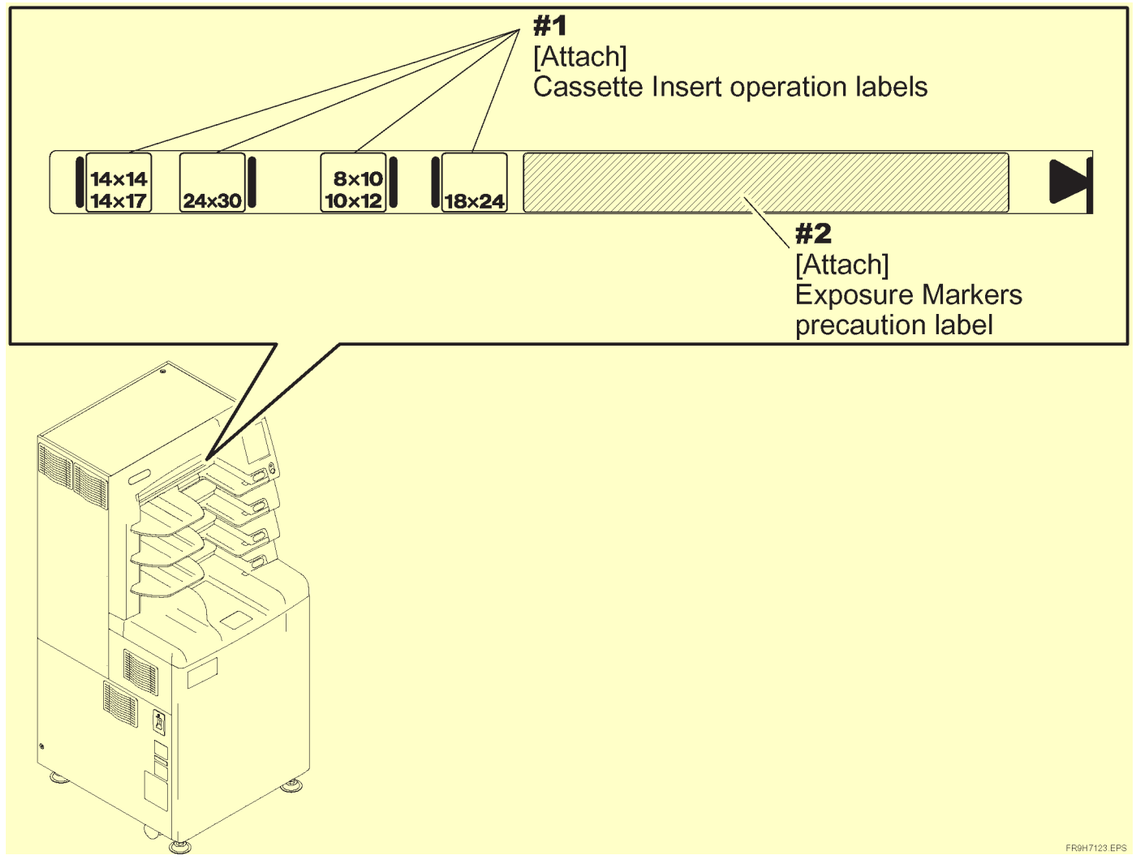


11. Cleaning the CL/RU

1. **Clean the monitor and covers of the CL with a dry cloth.**
2. **Clean the covers of the RU with a moistened cloth.**
3. **Peel the seal off the touch panel.**
4. **Attach the Cassette Insert operation labels and the Exposure Markers precaution label.**

◆ ***NOTE*** ◆

Attach the Cassette Insert operation labels for the cassette sizes that are employed by the user.



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Appendix 1. Additional Protective Grounding

Additional protective grounding will be required if installing this equipment in the patient environment with the connected equipment in a non-medically used room. Refer to Medical System Standard, IEC60601-1-1.

However, there may be cases where additional protective grounding is not possible. (For example in cases like non-metallic faceplate screws as well as boxes and isolated supply systems etc.) If this should happen, please refer to “Counter-measures for additional protective grounding” on the next page.

This installation work should only be performed by persons certified to handle electrical facility construction.

Definitions of “patient environment”, “medically-used room”, and “non-medically used room” are given below.

● Patient Environment

Patient environment is the area for the patient to receive medical procedures (treatment, tests, diagnosis, monitoring). It is the space measuring 2.5 m in all four directions and 2.5 m in height from the area of the patient’s body.

It excludes the space traveled by the patient to reach the medically-used room.

● Medically-Used Room

Room equipped with protective grounding (medical use outlet or medical use grounding terminal) implemented by the medical grounding method. The protective grounding inside the medically-used room is equipotential, and the protective grounding of this medically-used room is equipotential to that in the other medically-used room.

Generally, a portion of the medically-used room is the patient environment.

● Non-Medically Used Room

Areas outside the medically-used room are considered the non-medically used room.

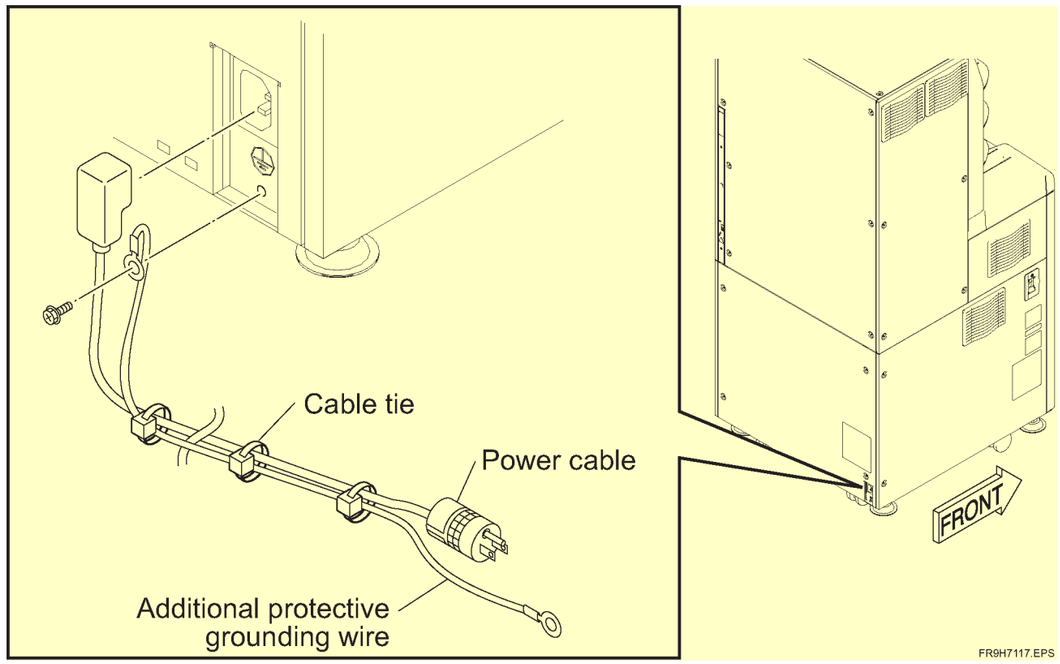
■ Connection Locations of Cables for Additional Protective Grounding of the Equipment and Clamp Locations

<INSTRUCTIONS>

Please use power supply cord and clamp (which is required for keeping the additional protective ground cord in position) approved by the electrical standard of the country to which the equipment is to be installed.

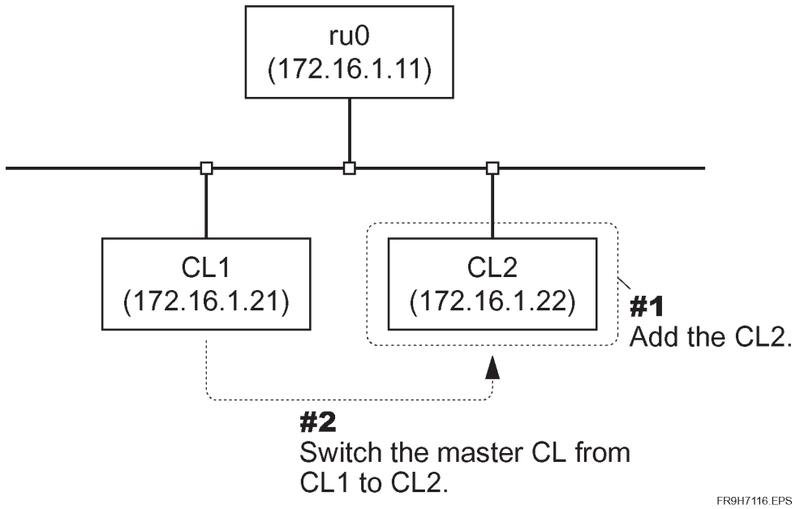
<Counter-measures for additional protective grounding>

1. *Engage the services of a professional to make the necessary preparations for the connection of additional protective grounding.*
2. *If the connected device possess a hospital grade earth terminal and is mobile, move the connected device and replace with a power supply plug which has hospital grade earth terminal.*
3. *Install a isolating transformer to the connected device. In this way, the power supply from the connected device will be separated from the main power supply.*



Appendix 2. Setting the Master CL

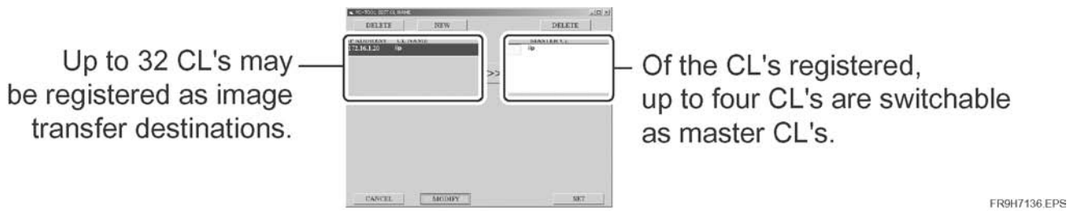
This section describes the procedures for additionally register the CL2 (172.16.1.22) into the system that consists of the RU (ru0: 172.16.1.11) and CL (master CL: 172.16.1.21), and for switching the master CL from CL1 to CL2.



FR9H7116.EPS

◇ *REFERENCE* ◇

Up to 32 CL's may be registered as image transfer destinations. Of the CL's registered, up to four CL's are switchable as master CL's.


Up to 32 CL's may
be registered as image
transfer destinations.
Of the CL's registered,
up to four CL's are switchable
as master CL's.

FR9H7136.EPS

For more detail about the function that may be set on the "EDIT CL NAME" screen, see "4.3.13 EDIT CL NAME" of the Maintenance Utility volume.

☞ *{MU:4.1.13_EDIT CL NAME}*

1. Additionally Registering the Master CL (Procedures on the CL1)

1. **Turn ON the power of the CL.**
2. **Turn ON the power of the RU.**
3. **Place the RU in the Maintenance Mode.**

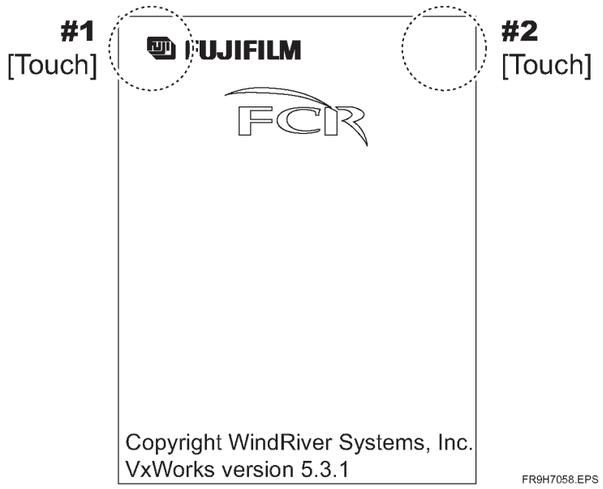
   After the main screen appears, sequentially touch the upper left and upper right corners of the touch panel.

◆ ***NOTE*** ◆

Because the IP address of the FTP server has not been set yet, it takes about three minutes until the main screen appears.

◇ *REFERENCE* ◇

If your touch is accepted by the panel, a "beep" alarm sound is generated.

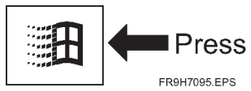


FR9H7058.EPS

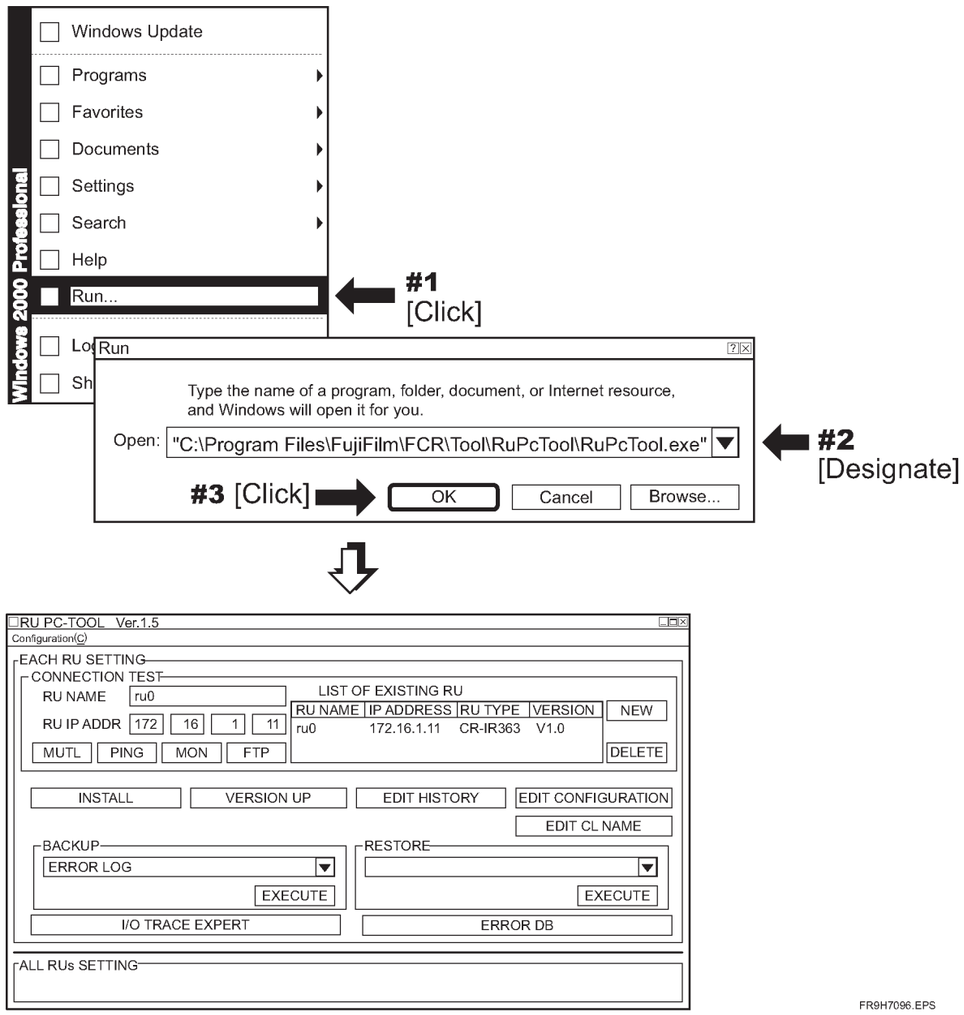
◆ ***INSTRUCTION*** ◆

If you cannot put the RU into the Maintenance Mode, turn OFF the power of the RU and then reboot the RU all over again.

4. **Press the [Windows] key to display the Start menu of Windows.**

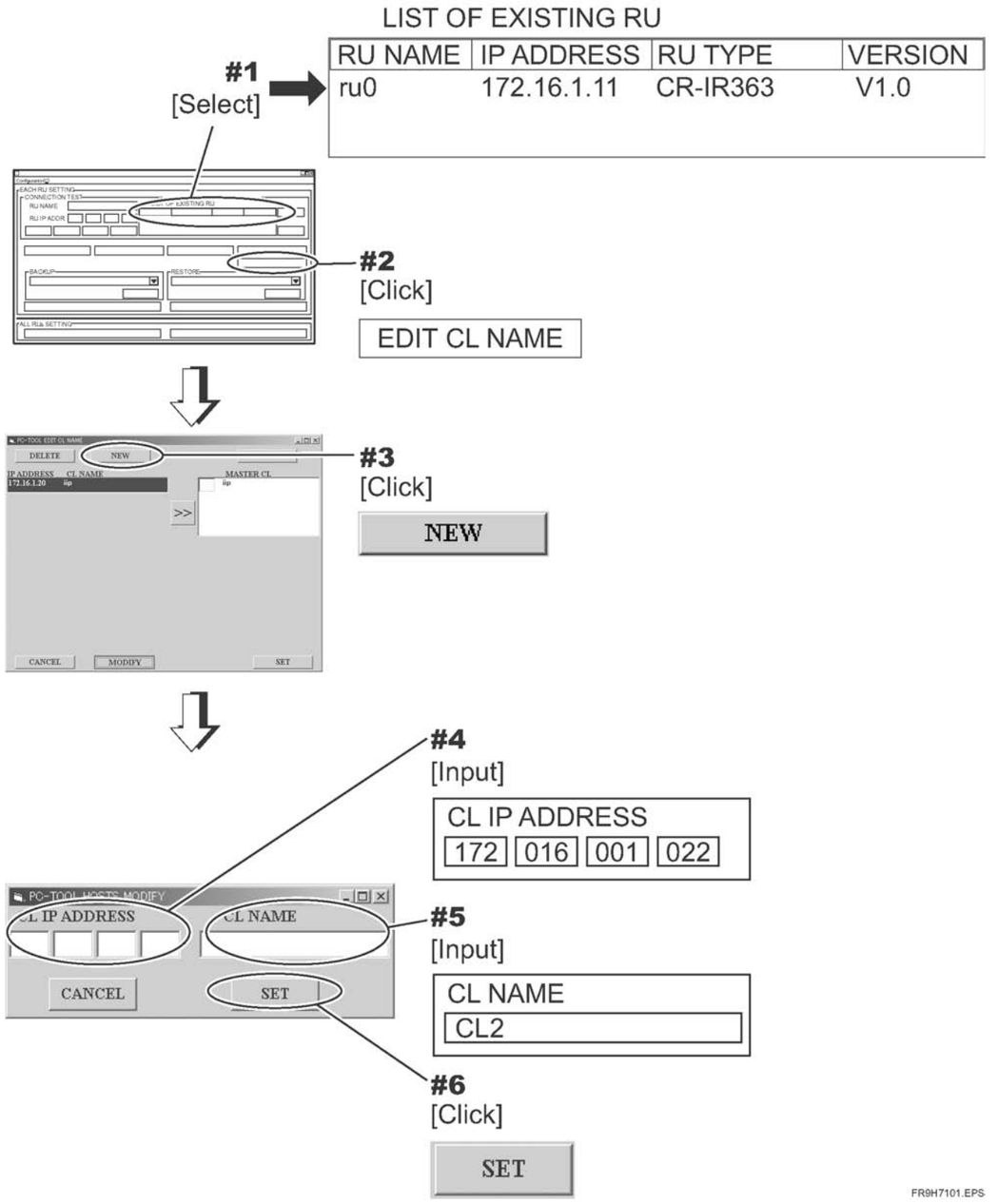


5. **Select [Run...] from the Start menu of Windows. When the dialog opens, type ["C:\Program Files\FujiFilm\FCR\TOOL\RuPcTool\RuPcTool.exe"] and click on the [OK] button.**



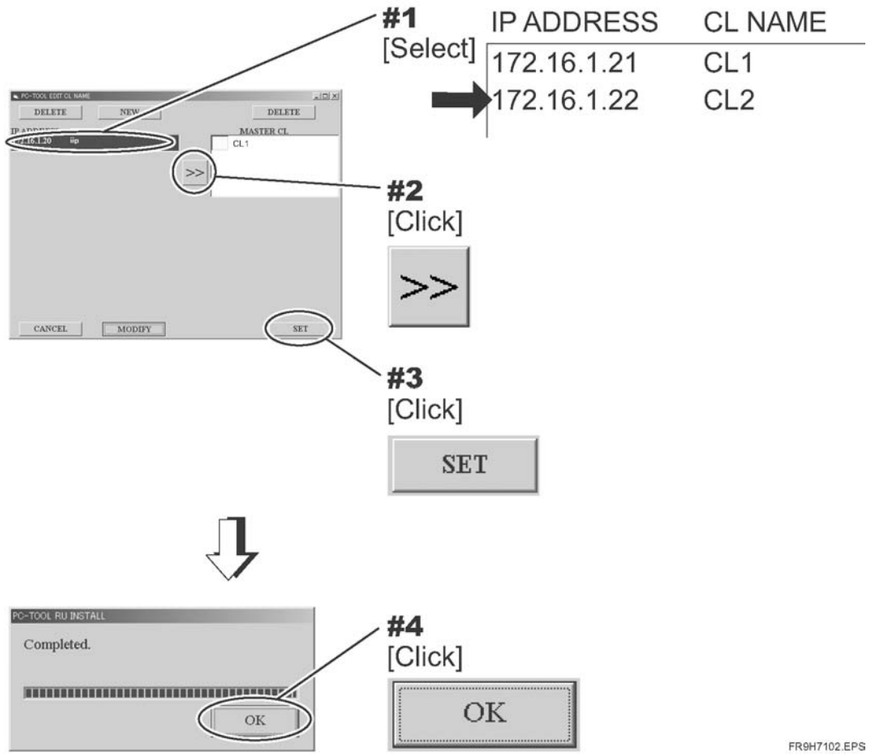
FR9H7096.EPS

6. **From "LIST OF EXISTING RU", select a RU where the master CL is to be added, and enter the "IP ADDRESS" and "CL NAME" of the master CL to be added.**



FR9H7101.EPS

7. **Register the master CL (CL2) created at step 6 into the Master CL.**



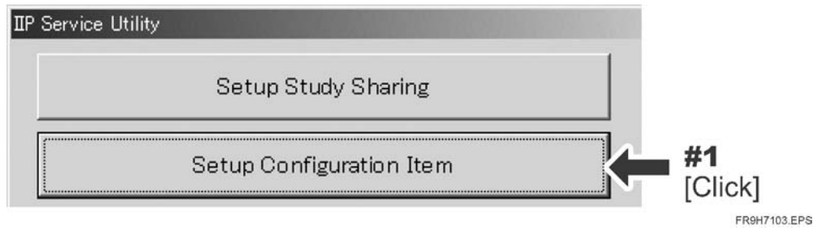
8. **Close the RU PC-TOOL window.**

2. Registering the RU (Procedures on the CL2)

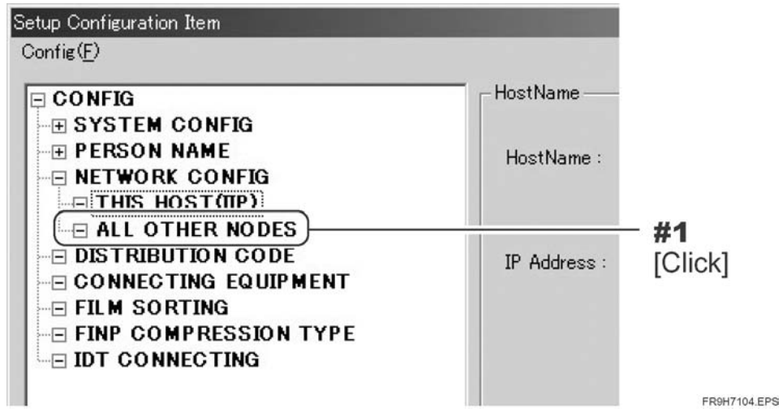
1. **Start the Service Utility.**

☞ {FCR XG-1/CR CL Service Manual/Maintenance Utility (MU)/1. Starting and Exiting the Service Utility}

2. **Click on [Setup Configuration Item].**

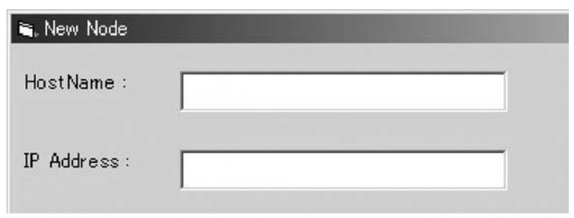


3. **Click on [ALL OTHER NODES] of [NETWORK CONFIG].**



4. **Click on** New **.**

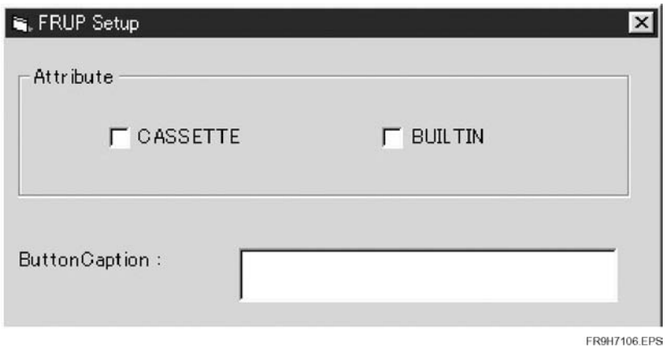
→ The "New Node" dialog box appears.



5. Enter the host name (ru0) of the RU in HostName : and its IP address (172.16.1.11) in IP Address : .

6. Select FRUP in the "Add Node" field, and click on OK.

→ The "FRUP Setup" screen appears.



FR9H7106.EPS

7. Check CASSETTE in the "Attribute" field (☐ → ☑).

8. Type "ru0" in ButtonCaption : .

◇ *REFERENCE* ◇

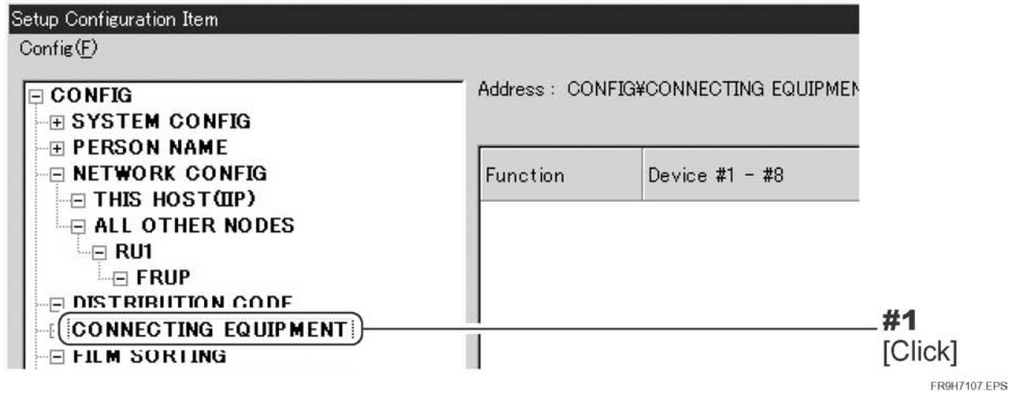
The name should not necessarily be the same as the host name.

9. Click on OK.

→ Registering the network information is now completed.

3. Registering the Machine Information (CONNECTING EQUIPMENT)

1. Click on [CONNECTING EQUIPMENT] in the "Setup Configuration Item" window.

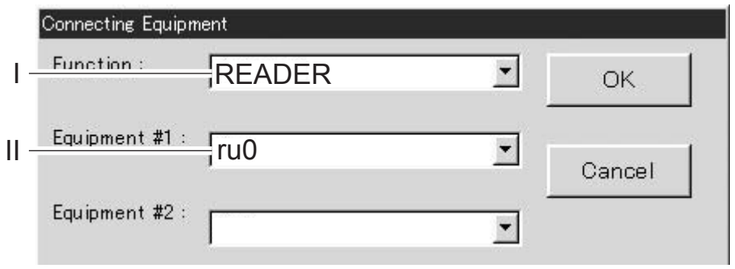


FR9H7107.EPS

2. Click on New.

→ The "Connecting Equipment" dialog box appears.

3. Register the machine information as shown below.



FR9H7108.EPS

I. Select "Reader".
II. Select the host name (e.g., ru0).
III. If several RU's are connected, select the second and subsequent host name(s) in "Equipment #2" and so on.

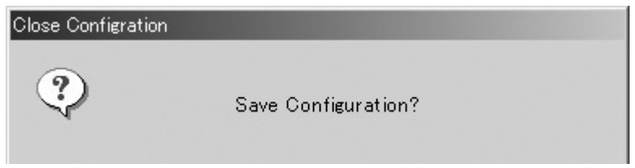
4. Click on OK.

→ Registering the machine information is now completed.
The "Setup Configuration Item" window appears back on screen.

4. Saving Configuration and Exiting Service Utility

1. From the "Config (F)" menu in the "Setup Configuration Item" window, select "Save (V)".

→ The save confirmation window appears.



2. Click on Yes **.**

→ The setup is saved.

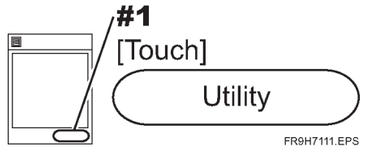
3. From the "Config (F)" menu, select "Close (C)".

→ The "Service Utility" window appears back on screen.

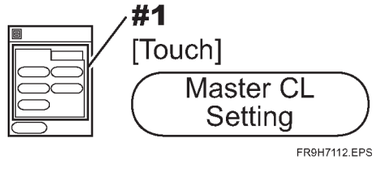
4. Exit the Service Utility.

5. Verifying Switching of Master CL

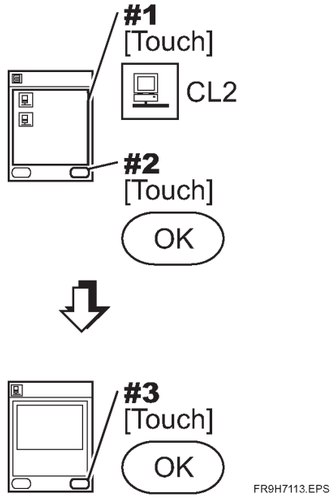
1. **Turn OFF the power of the RU.**
2. **Turn ON the power of the RU.**
3. **Touch the [Utility] button.**



4. **Touch the [Master CL Setting] button on the [1/2] tag.**



5. **Touch the icon of CL2, and hit the [OK] button.**



◇ *REFERENCE* ◇

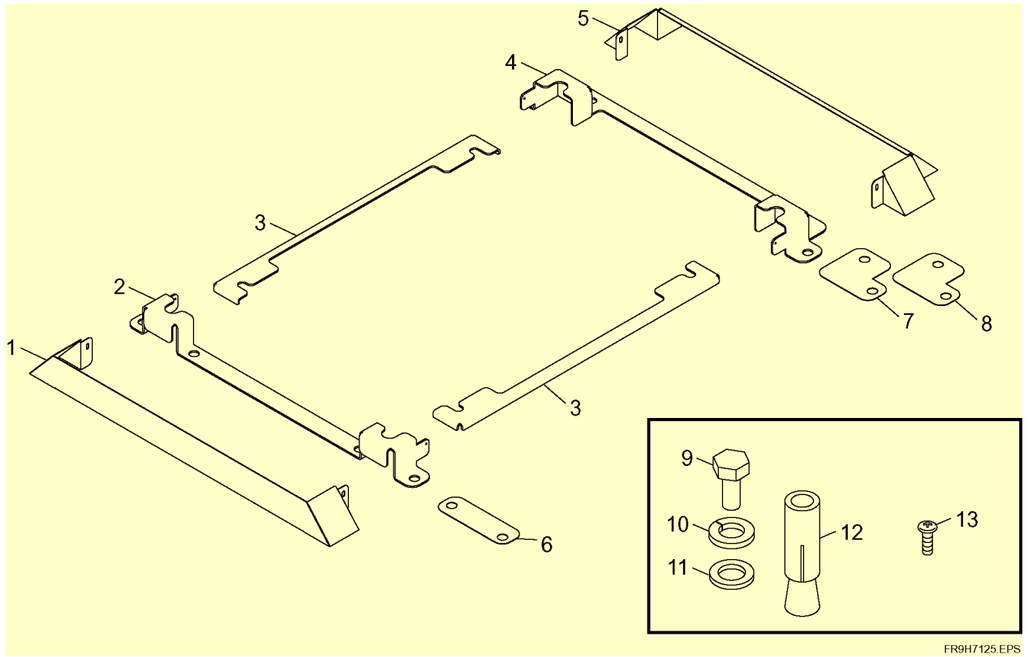
The power of the RU automatically turns OFF about 1 minute after the master CL is set.

6. **Turn ON the power of the RU.**
7. **Perform reading, and make sure that the image is transferred to the master CL.**

Appendix 3. Securing the Machine with the Anti-Topple Retainers

The procedures described herein are applicable when the RU is secured down onto the floor by use of the anti-topple retainers.

1. Components of Anti-Topple Retainer Kit



No.	Name	Qty.	Remarks
1	Cover (front)	1	350N2873
2	Bracket (front)	1	356N9407
3	Bracket	2	356N9406A
4	Bracket (rear)	1	356N9534
5	Cover (rear)	1	350N2874A
6	Spacer (2 mm)	12	347N1930
7	Spacer (1 mm)	2	347N1929
8	Spacer (2 mm)	12	347N1928
9	Hex head socket bolt (12x20)	8	304S1001225
10	Spring washer (SW12)	8	309S0220012
11	Plain washer (W12)	8	309S0120012
12	Anchor nut (Na12)	8	305S0061
13	Truss screw (T3x6)	4	301S3000408

2. Securing the Machine with the Anti-Topple Retainers

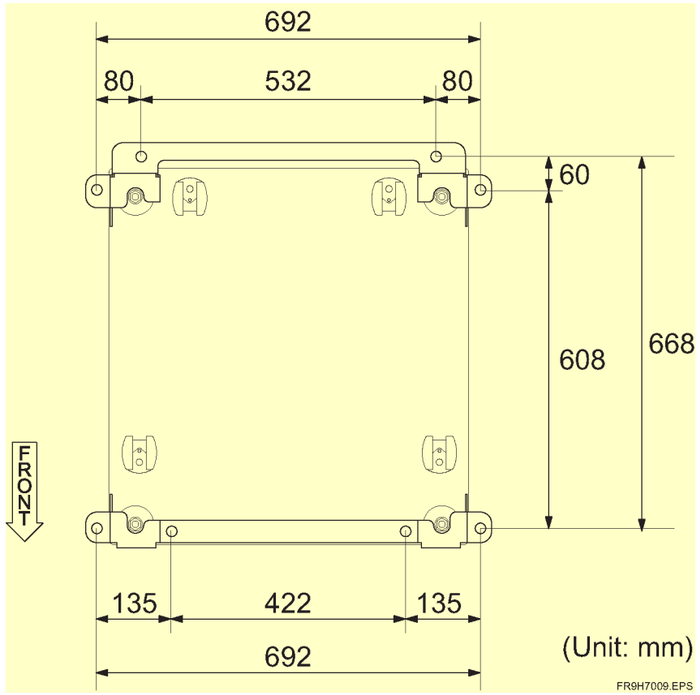
◆ *NOTE* ◆

Before drilling holes for embedding the anchor nuts, wear protective goggles.

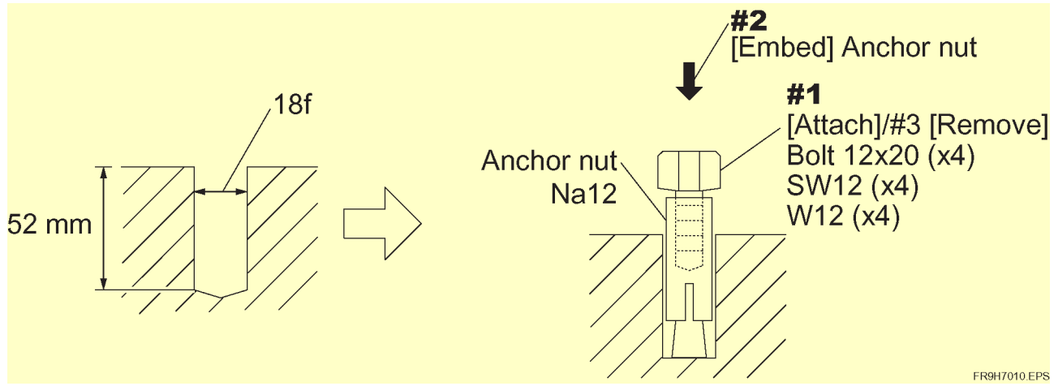
◇ *REFERENCE* ◇

When determining the locations for embedding the anchor nuts, temporarily install the machine and retainers in place, and then mark the locations.

1. **Determine the locations for embedding the anchor nuts.**
<Reference values>



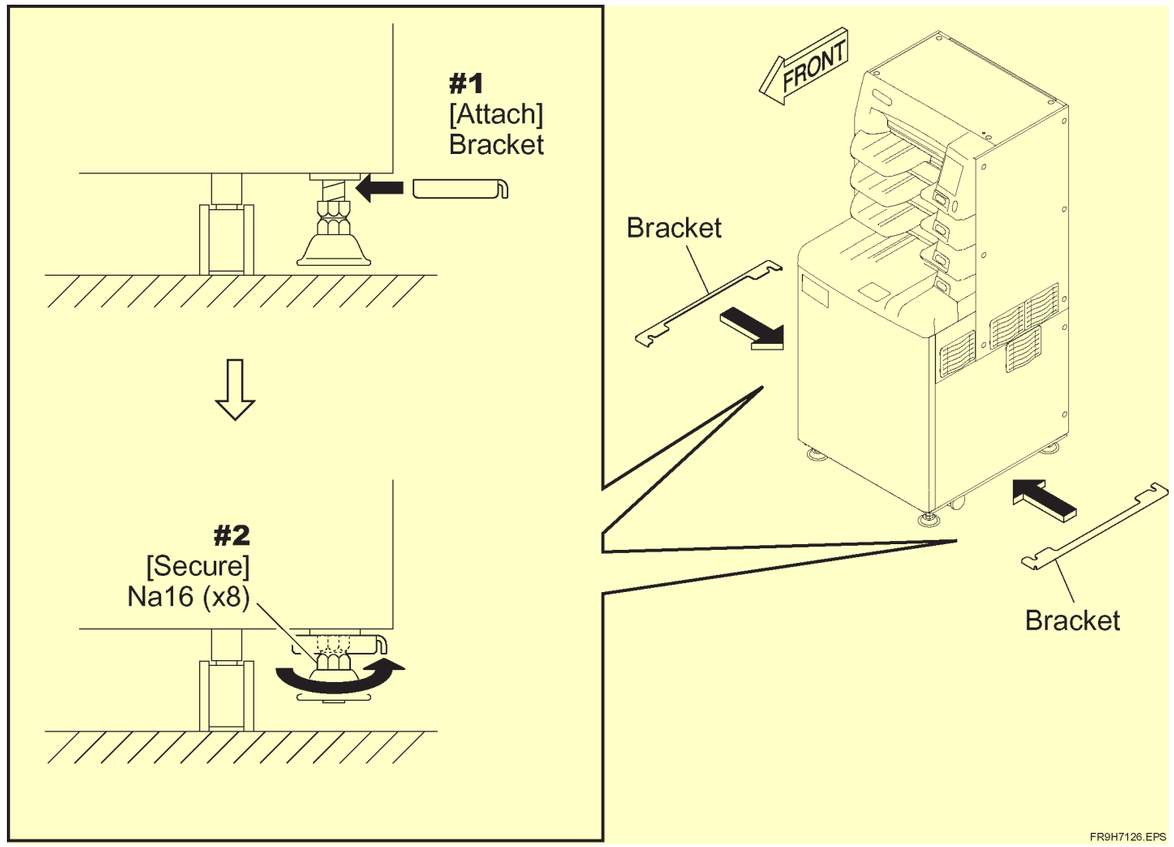
2. **Drill holes for embedding the anchor nuts and then embed the anchor nuts.**



3. **Attach the brackets to the machine.**

◇ *REFERENCE* ◇

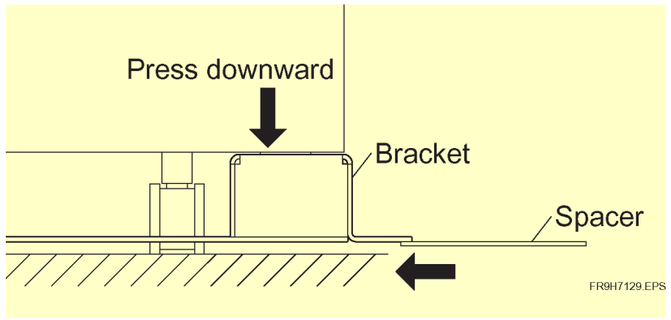
The brackets to be attached to the right and left sides of the machine are identical in shape.



4. Move the machine to the location where it is to be secured, and then attach the bracket to the rear side of the machine and insert 2mm-thick spacers.

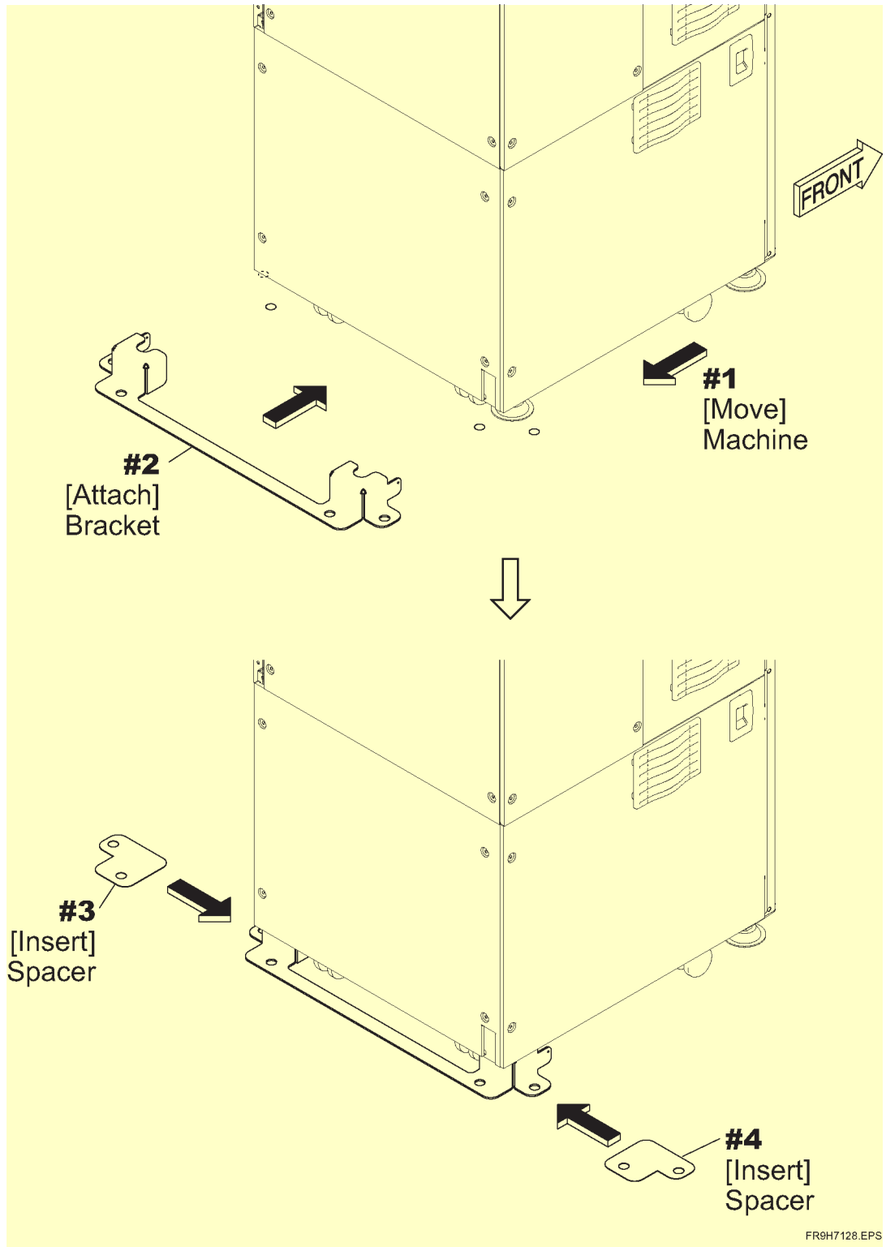
◆ ***NOTE*** ◆

While pressing the bracket downward, insert 2mm-thick spacers.

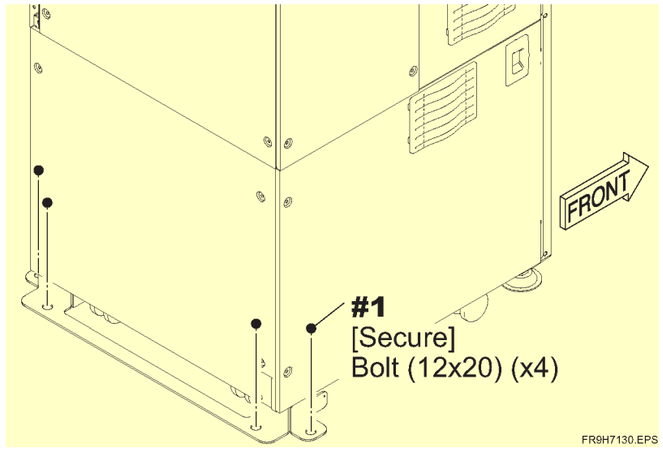


◆ ***INSTRUCTION*** ◆

Insert 2mm-thick spacers until a 1mm-thick spacer is no longer inserted.



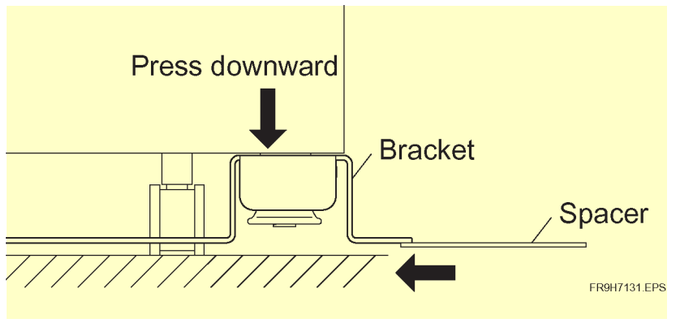
5. **Secure the brackets by bolts.**



6. **Attach the bracket to the front side of the machine, and insert 2mm-thick spacers.**

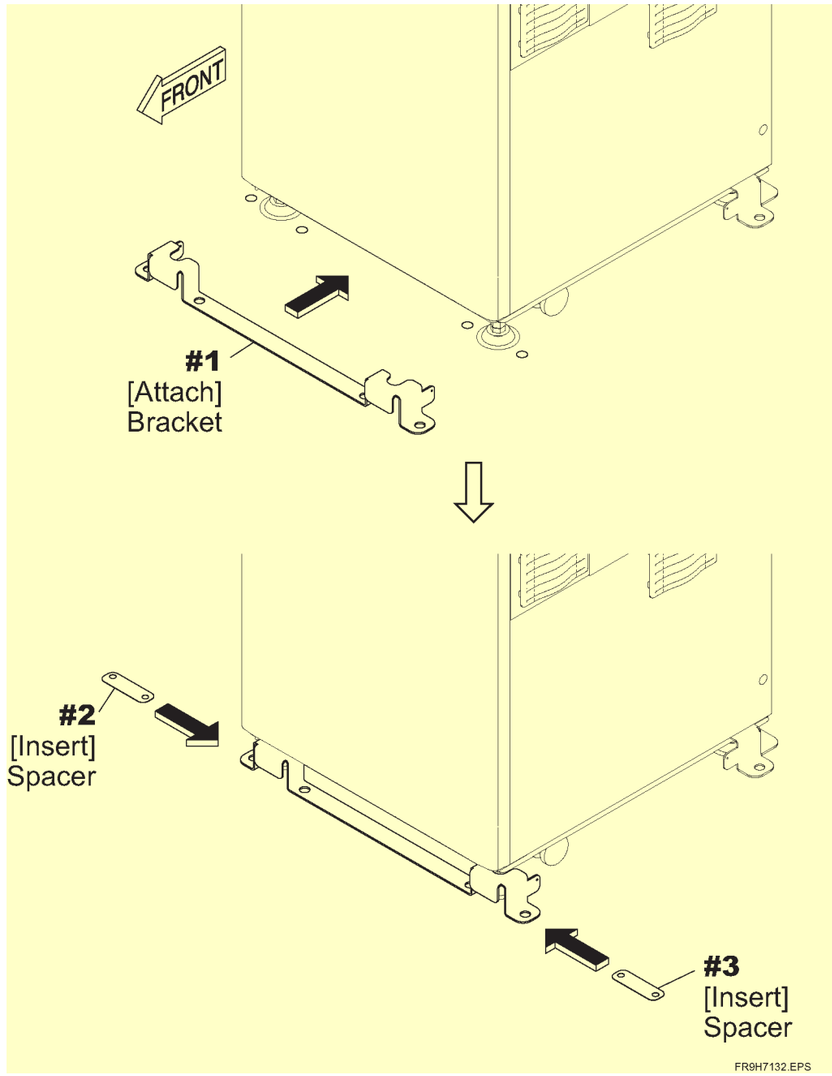
◆ ***NOTE*** ◆

While pressing the bracket downward, insert 2mm-thick spacers.

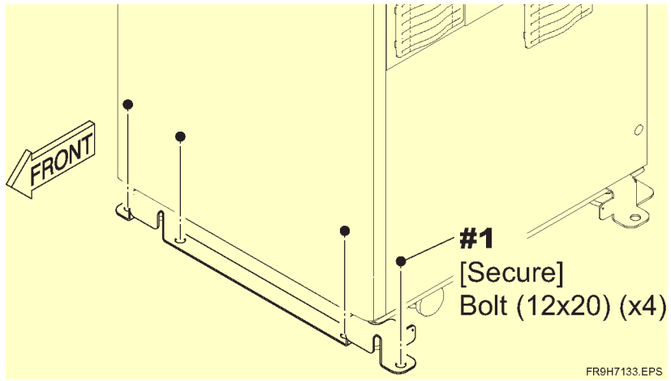


◆ ***INSTRUCTION*** ◆

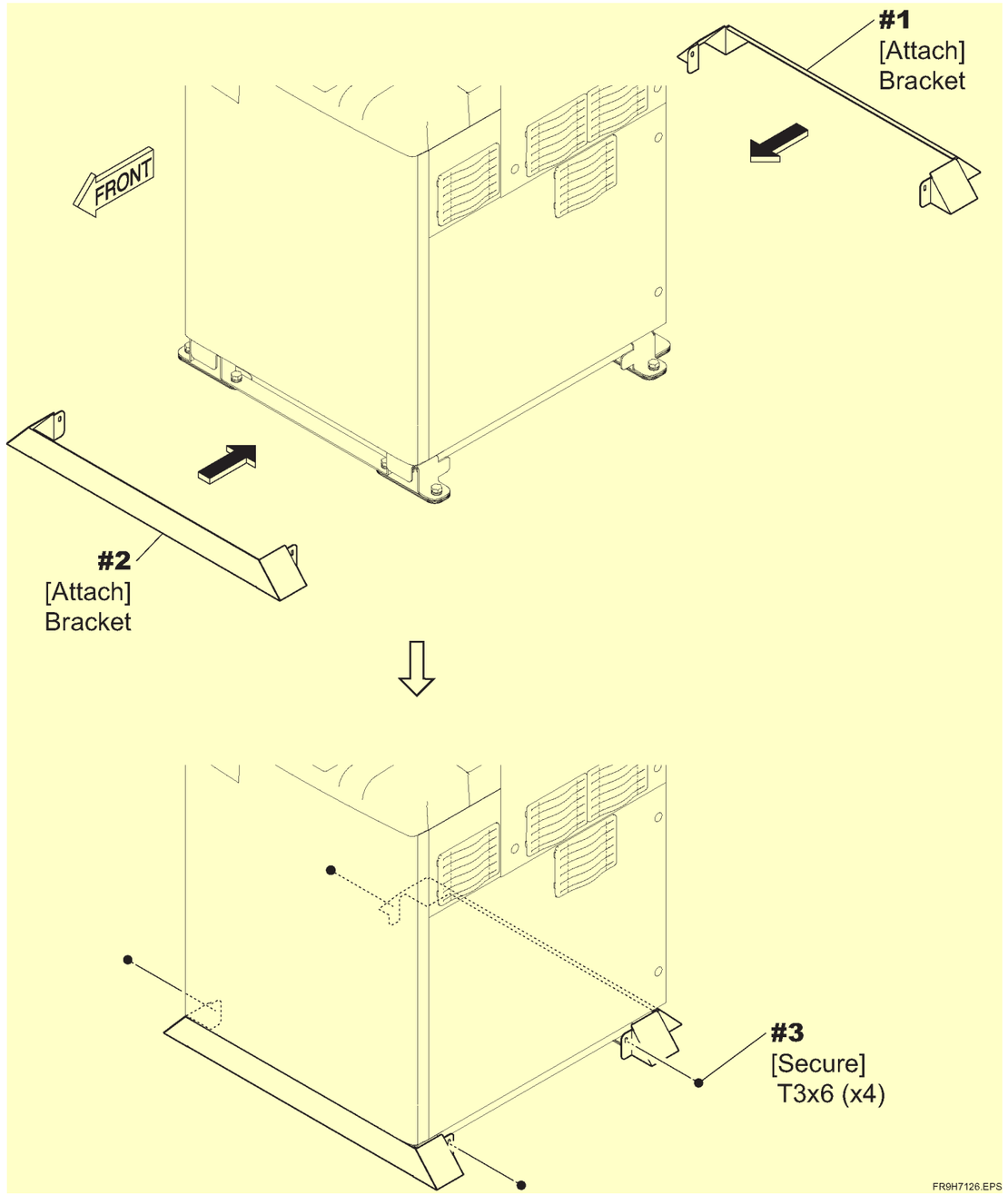
Insert 2mm-thick spacers until a 2mm-thick spacer is no longer inserted.



7. **Secure the bracket by bolts.**



8. **Attach the cover brackets.**

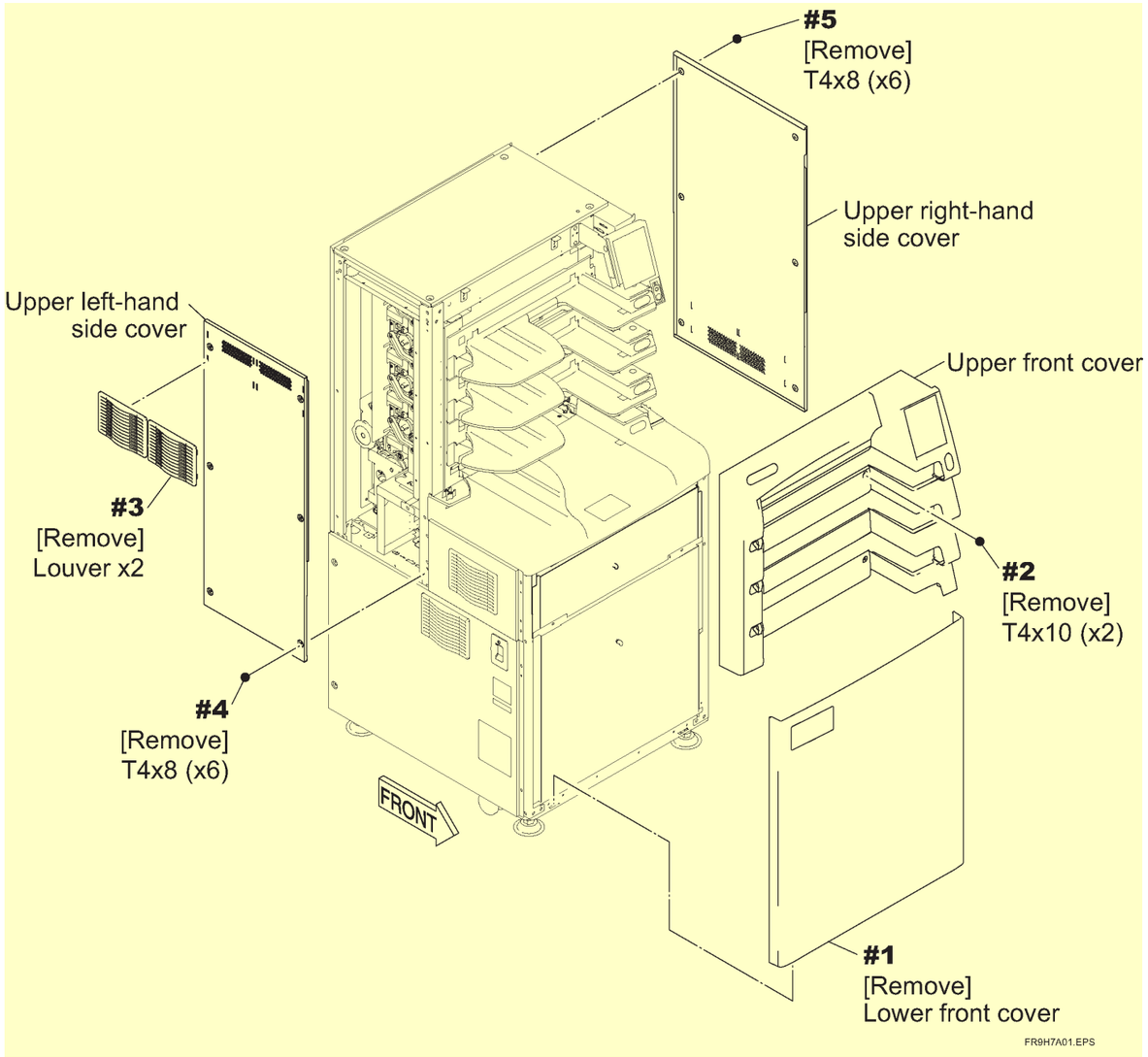


Appendix 4. Setting the Both-Side Cassette Identification Barcode Reader

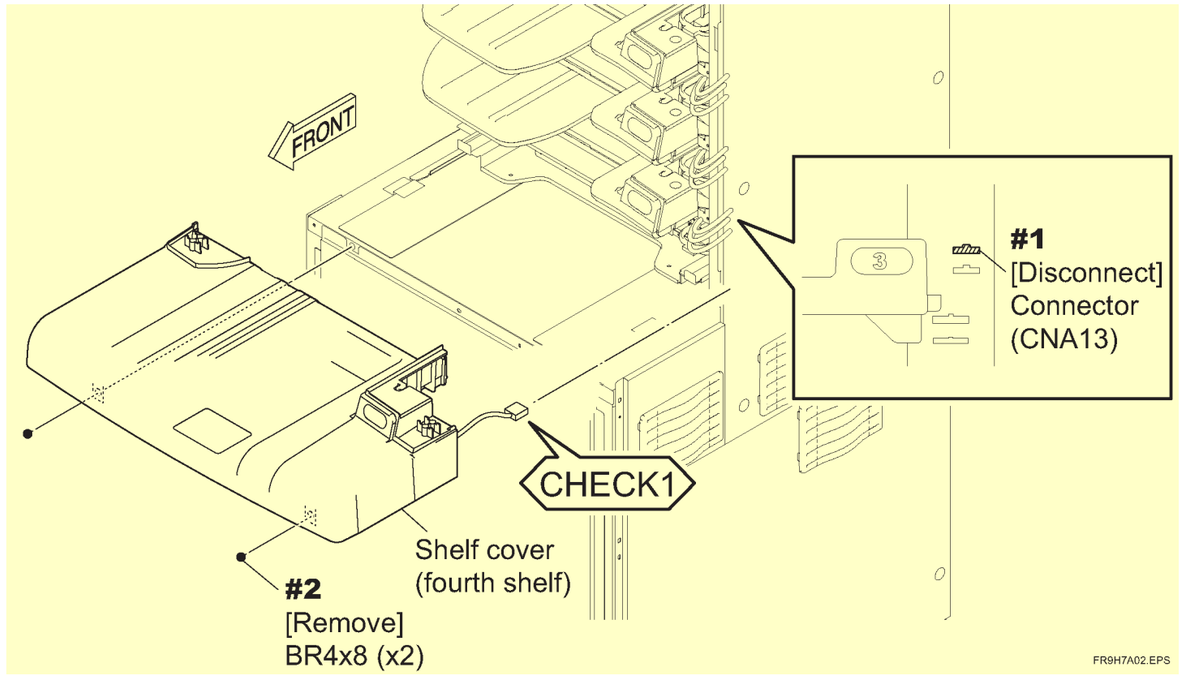
The following setting should be made when the both-side cassette identification barcode reader (for preventing wrong insertion of both-side cassette) is to be used with the CR-IR362.

1. Installing the Barcode Reader

1. Remove the covers.



2. Remove the shelf cover (for the fourth shelf).



- CHECK 1

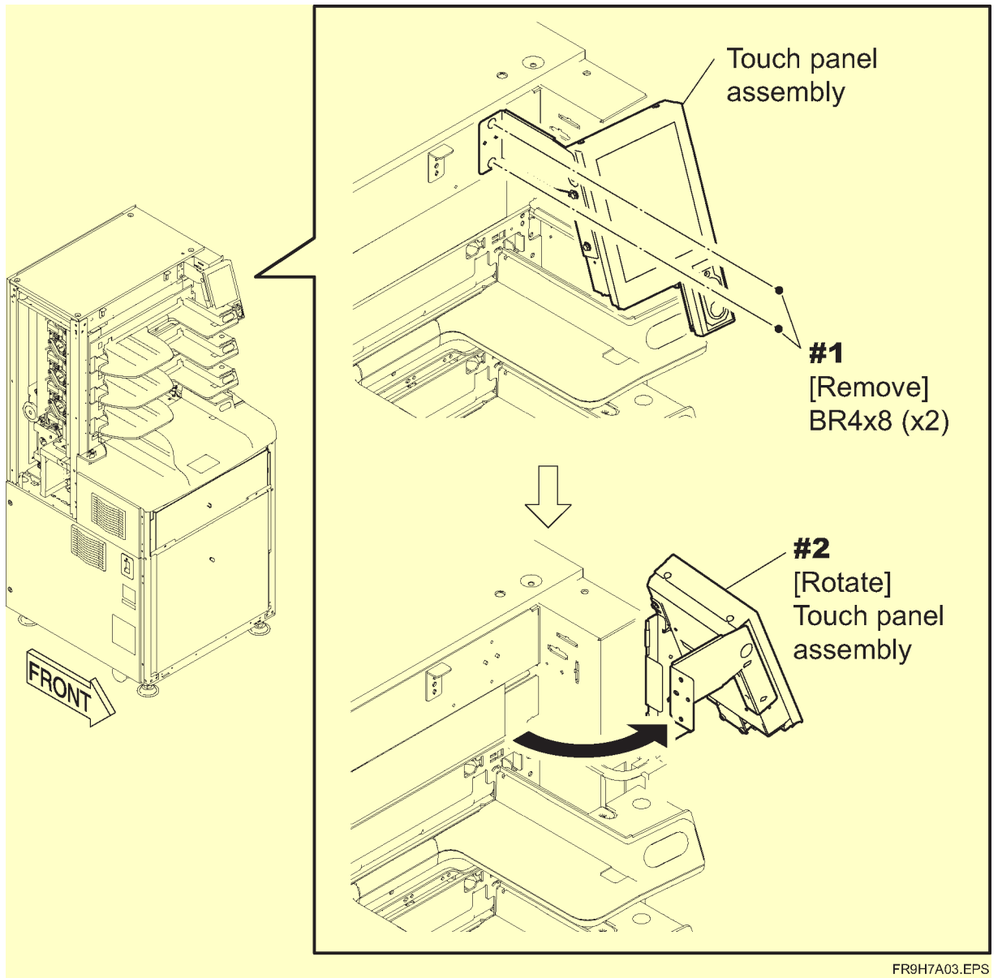
  When installing the shelf cover (for the fourth shelf), avoid the cable and connector beforehand so as not to pinch them.

◆ ***NOTE*** ◆

In case of machine #50001 or later, removal procedure of touch panel assembly differs in step 3-5.
For the detailed procedure, refer to "Checks, Replacement and Adjustment of Parts (MC)" in "4.17 Touch Panel Assembly (#50001 or Later)".

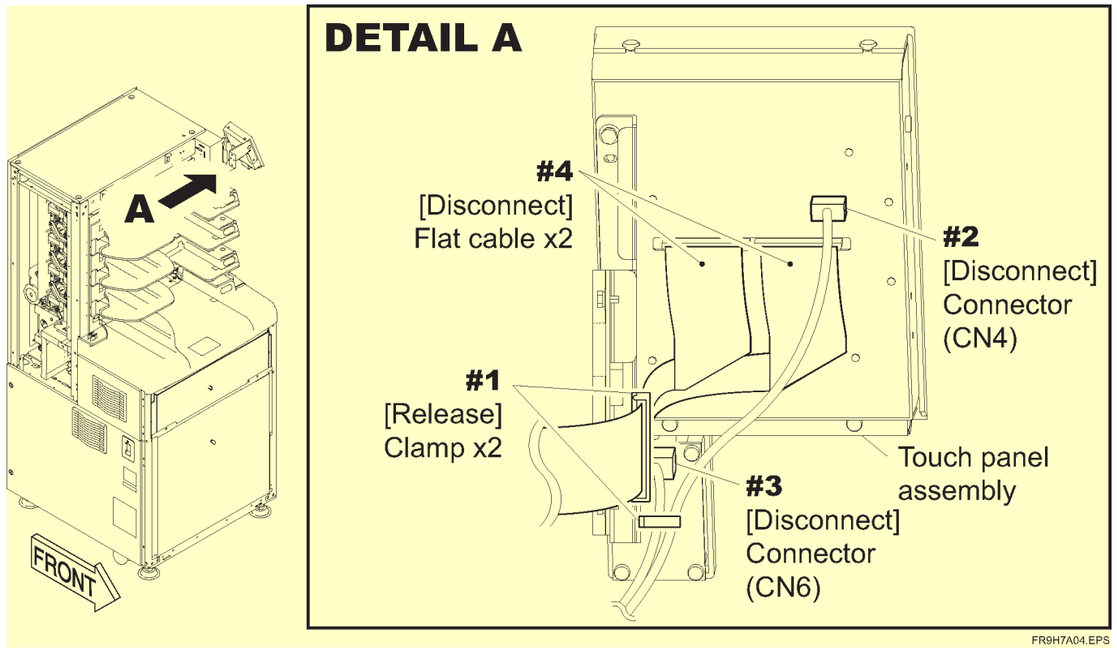
☞ *{MC: 4.17_Touch Panel Assembly (#50001 or Later)}*

3. Move the touch panel assembly away.



FR9H7A03.EPS

4. Disconnect the cables and connectors.

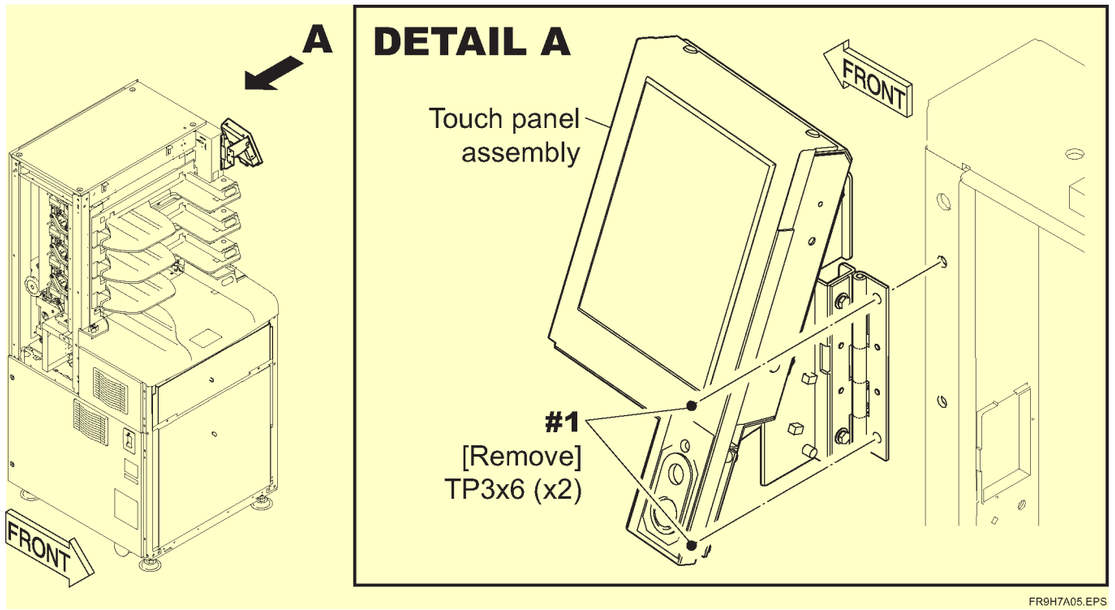


FR9H7A04.EPS

5. Remove the touch panel assembly.

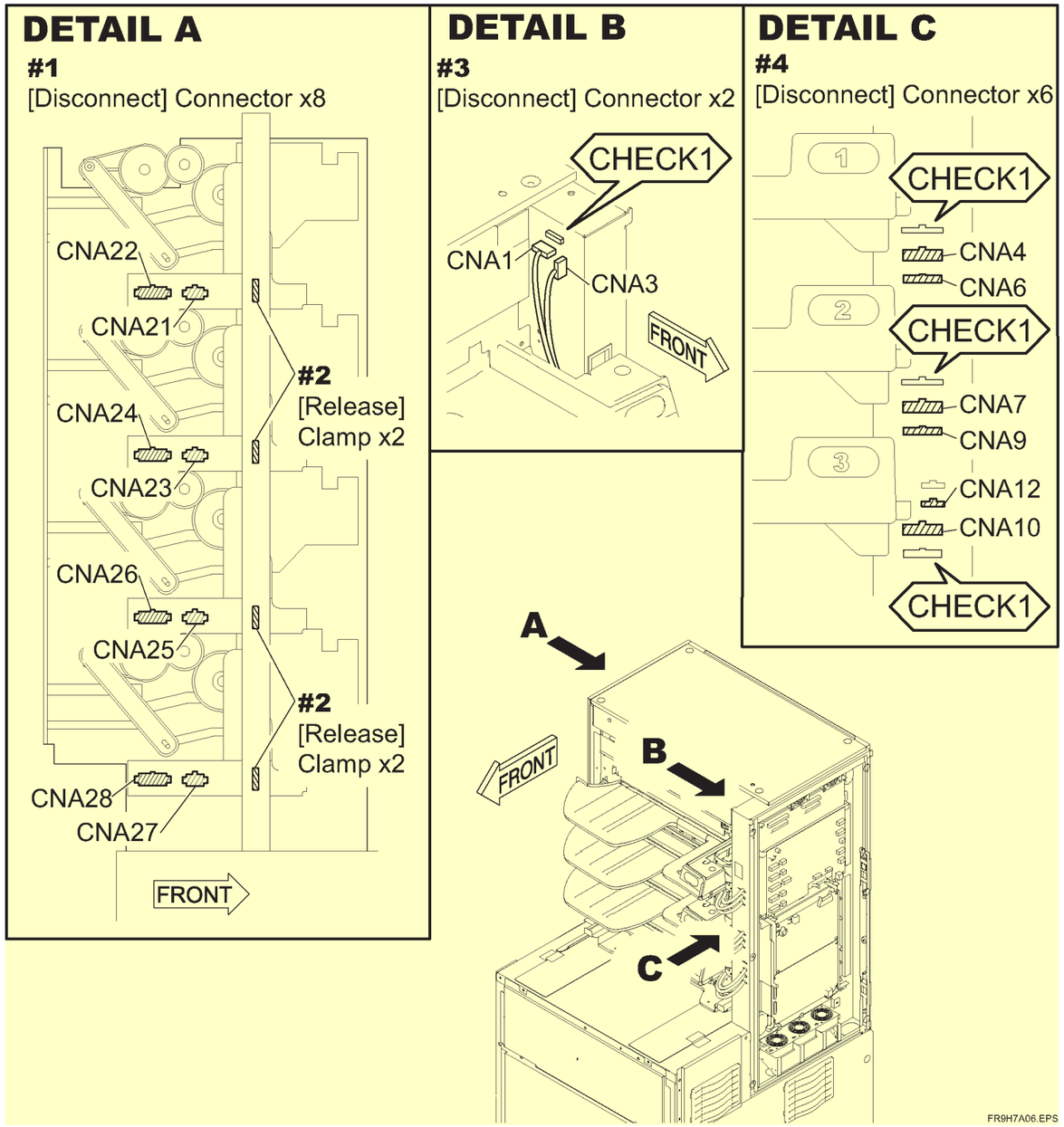
◆ ***NOTE*** ◆

After removing the touch panel assembly, secure the disconnected cables and connectors to the housing with tape or the like to prevent them from becoming entangled.



FR9H7A05.EPS

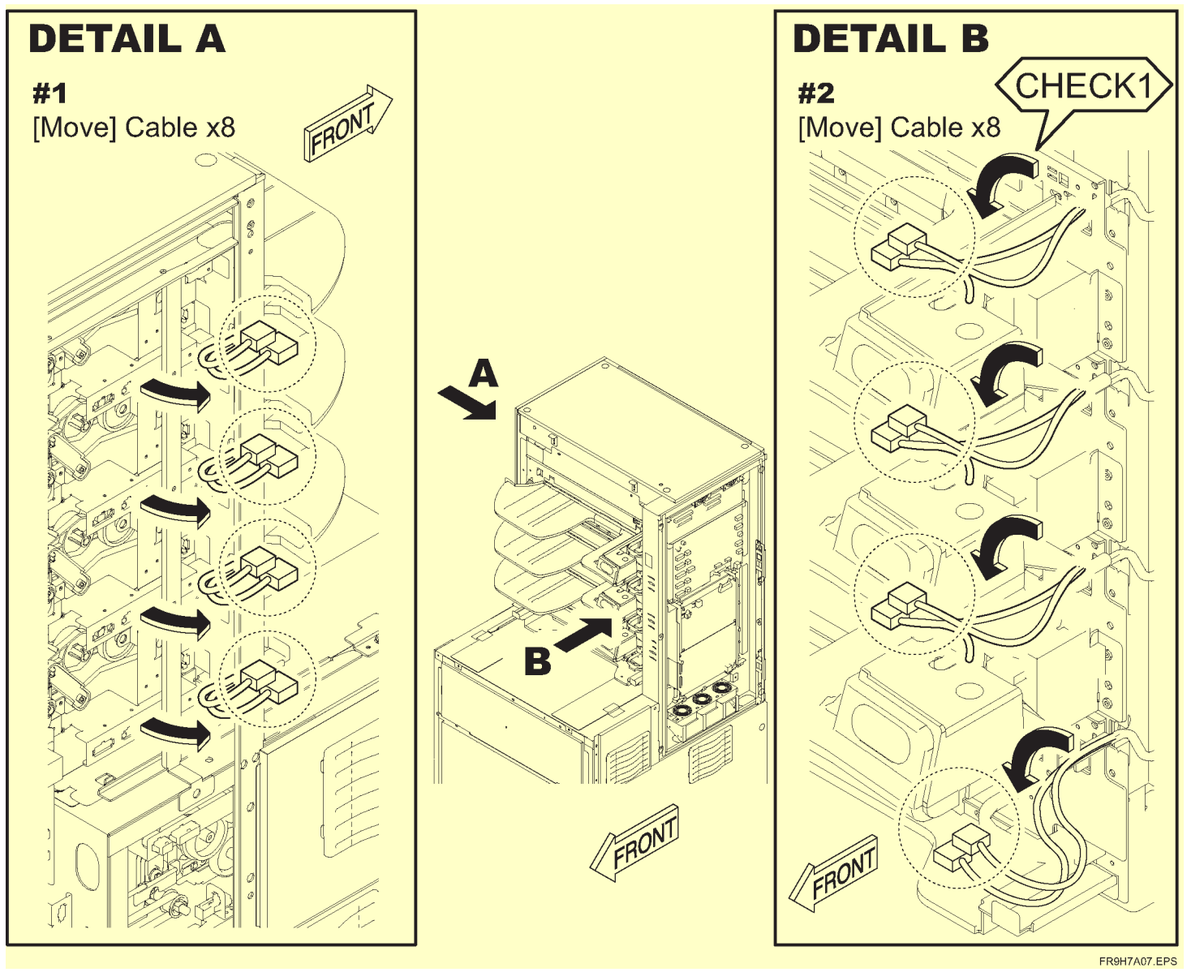
6. **Disconnect the connectors.**



- CHECK 1

  Be sure to connect the connectors of the barcode reader installed.

7. **Move the cables away.**

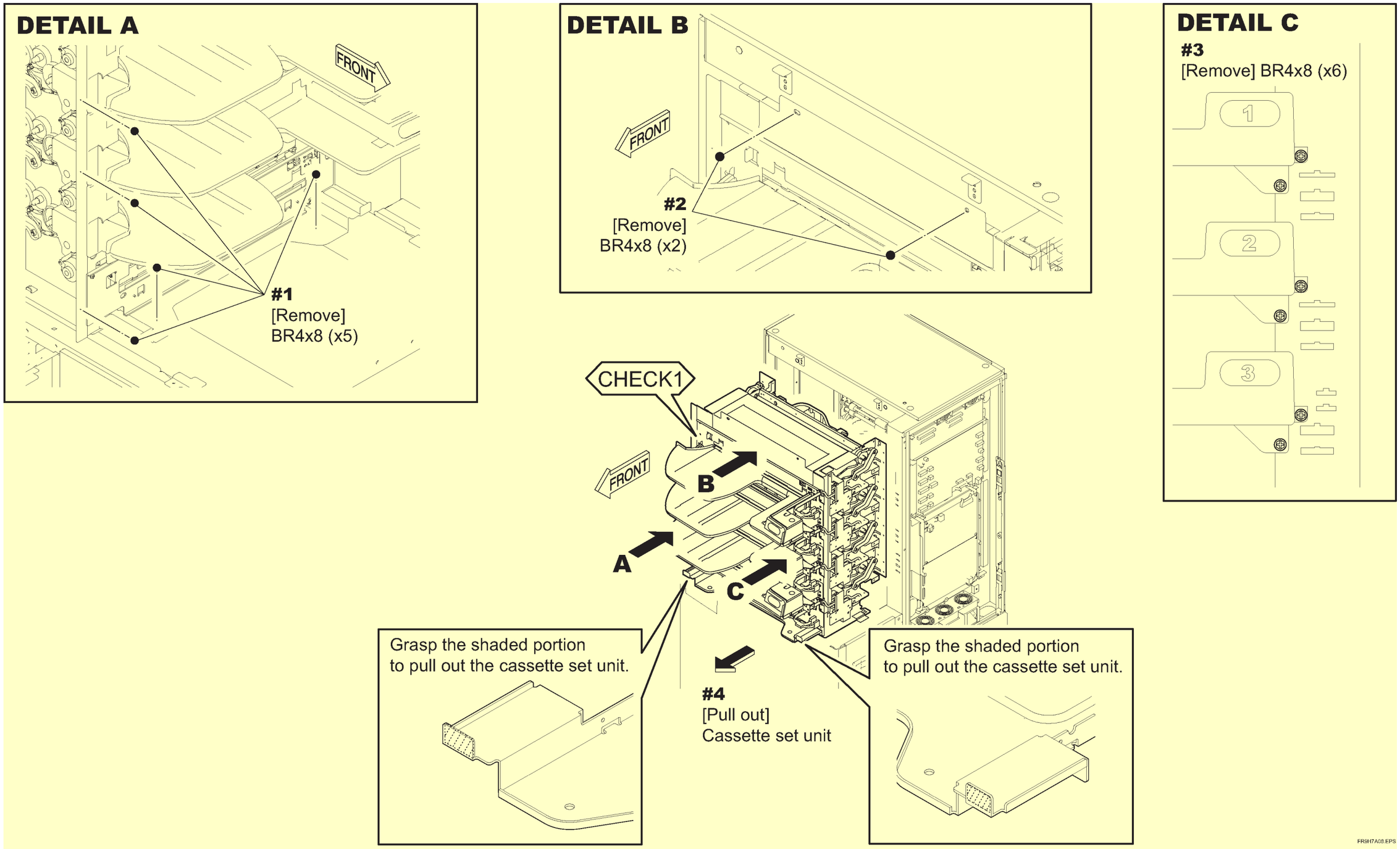


- CHECK 1

  Move the cables of the barcode reader installed as well, together with the other cables.

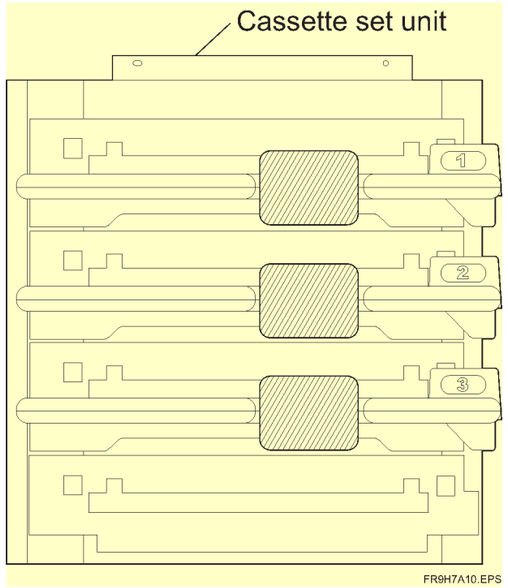
8. **Pull out the cassette set unit.**

☞ {CHECK 1}



- CHECK 1

  To push the cassette set unit into the housing, get hold of the portions indicated in the illustration below. If other areas are grasped, portions of the cassette set unit may be damaged.

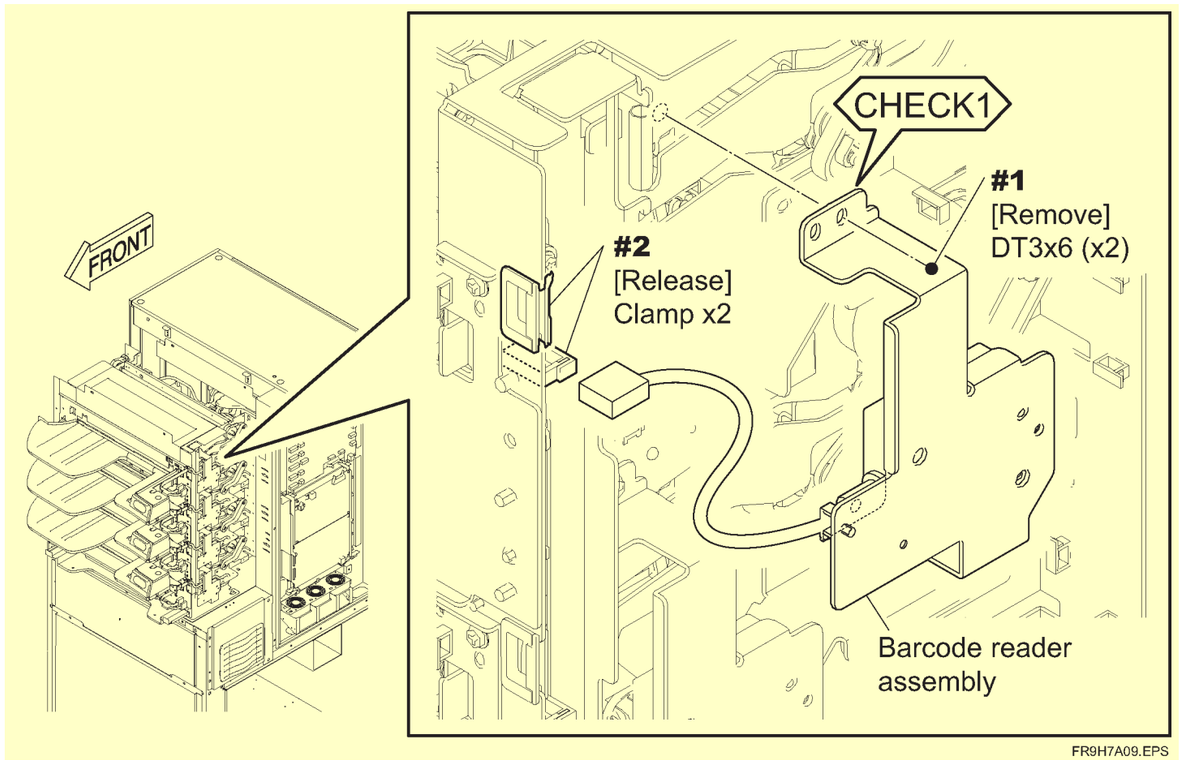


FR9H7A10.EPS

9. Install the barcode reader assemblies (for the first, second, third, and fourth shelves).

◆ ***NOTE*** ◆

The Installation procedures for the barcode reader assemblies for the first, second, third, and fourth shelves are all identical.



FR9H7A09.EPS

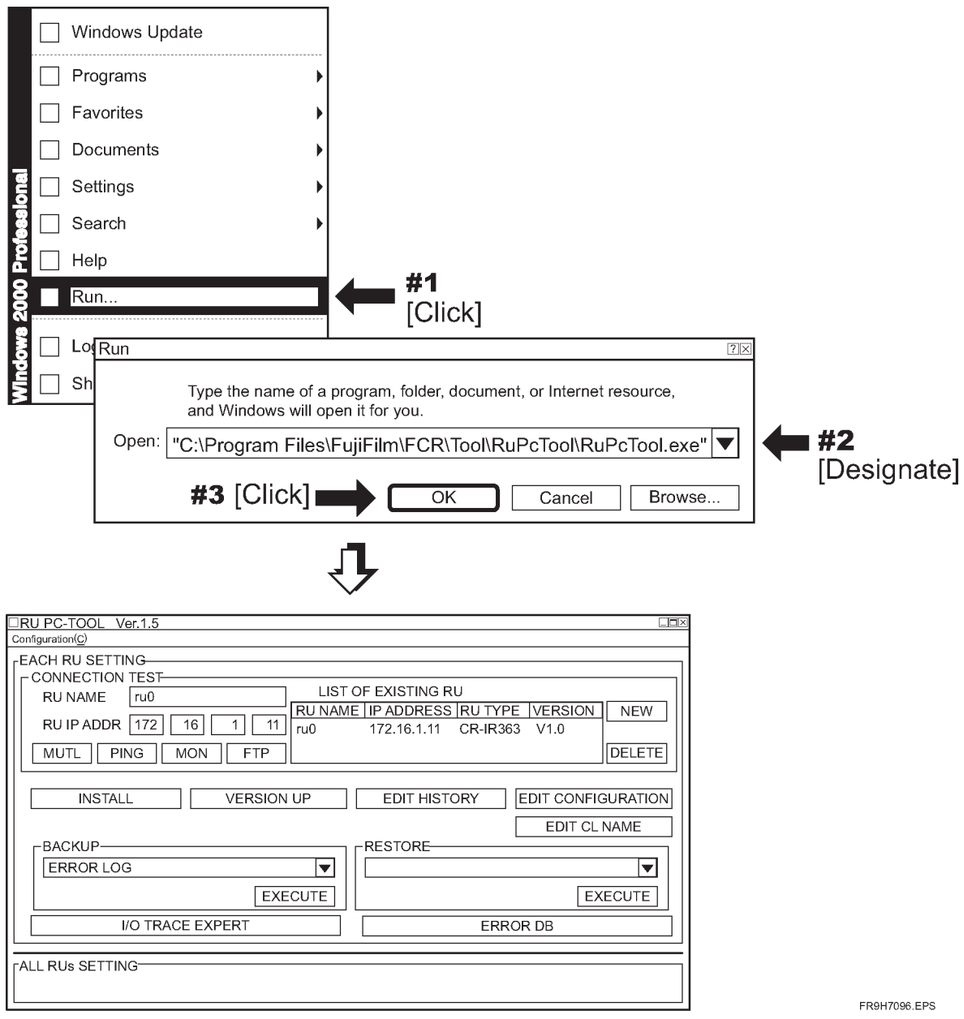
- CHECK 1

  Make sure that the barcode reader assembly does not pinch its surrounding cables.

10. Reinstall the removed parts in reverse order of removal.

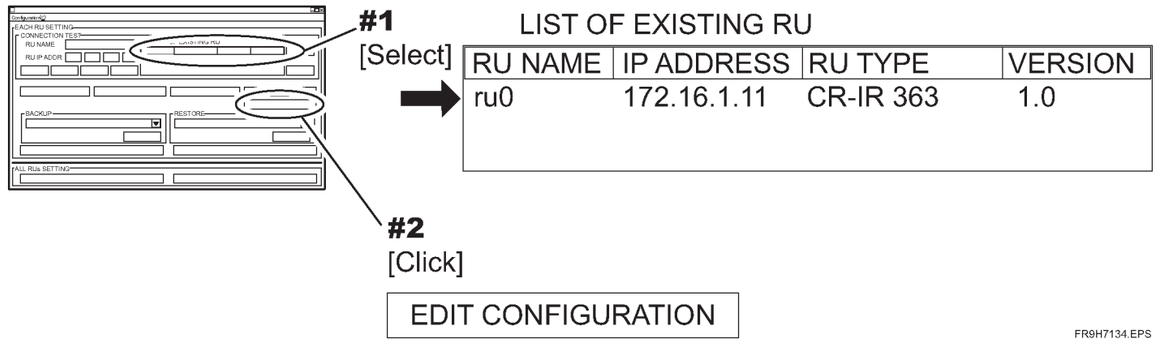
2. Setting the Barcode Reader

1. **Select [Run...] from the Start menu of Windows. When the dialog opens, type ["C:\Program Files\FujiFilm\FCR\TOOL\RuPcTool\RuPcTool.exe"] and click on the [OK] button.**



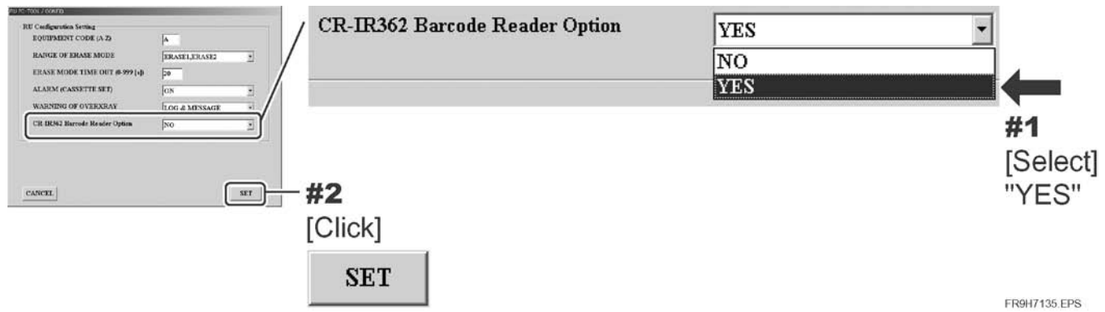
FR9H7096.EPS

2. **From "LIST OF EXISTING RU", select a RU for its setting, and click on "EDIT CONFIGURATION".**



FR9H7134.EPS

3. **Select "YES" from "CR-IR362 Barcode Reader Option", and click on "SET".**



FR9H7135.EPS

4. **Close the RU PC-TOOL.**

Appendix 5. Changes in the Packaging Specifications (#20001 or Later)

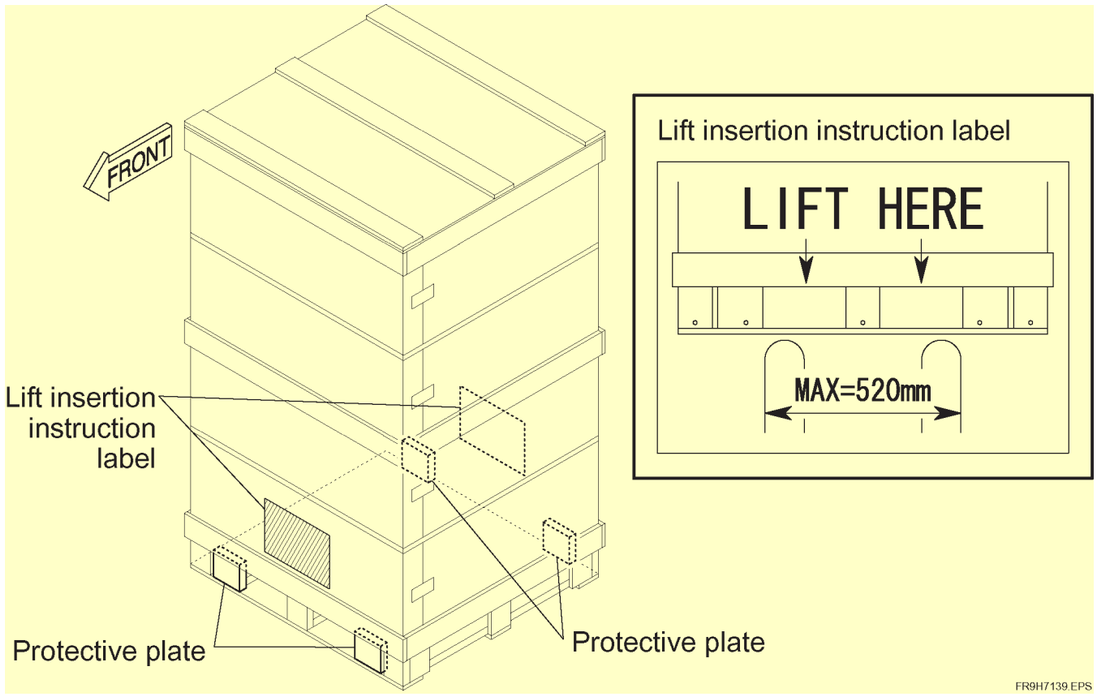
The specifications of the crate have changed for machines of #20690 or later.

The changes are as follows:

1. The protective plates and the lift insertion instruction labels are added to the front and rear faces on the lower part of the crate.
2. The PP band which retains wooden material of the carrier pallet with the shock absorber is changed to a cable member and the retaining location is changed.
3. Wooden materials are added to four corners inside the crate.

1. Addition of the Shock Absorber and Label

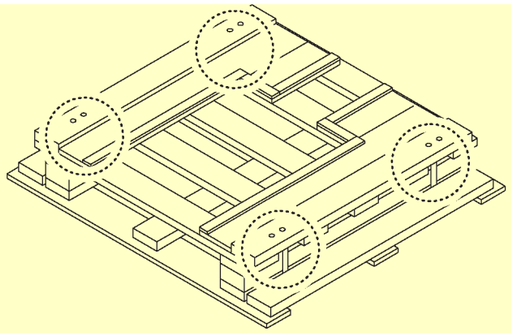
The protective plates and the lift insertion instruction labels are added to the front and rear faces on the lower part of the crate, in order to prevent the carrier pallet from getting damaged when the lift is to be inserted.
The locations where the protective plates and the lift insertion instruction labels are added are as shown below.



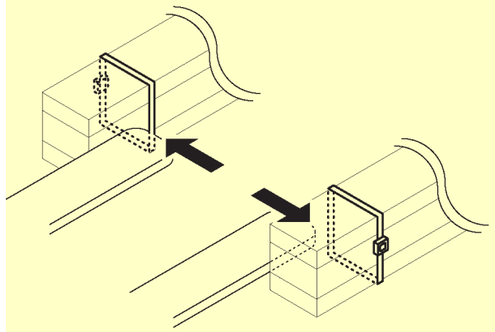
2. Changes in Retaining Member and Retaining Location

The PP band is changed to a cable member and the retaining location is changed, so as to prevent the PP band retaining the wooden material with the shock absorber from being cut when the lift is inserted into the carrier pallet.

Before change: The PP band retains around the wooden material and the shock absorber.
After change: Holes are bored on the wooden material and the shock absorber, and the sides which are not to be in contact with the lift are retained by the cable member.

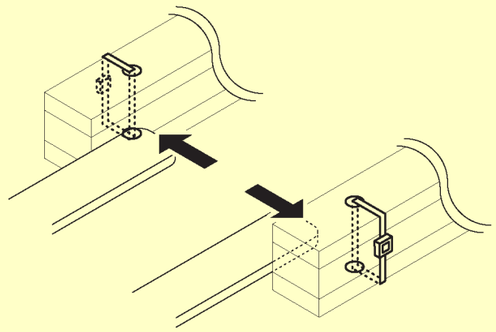


Before change



The tip of the lift comes into contact with the PP band, causing the band to be cut.

After change

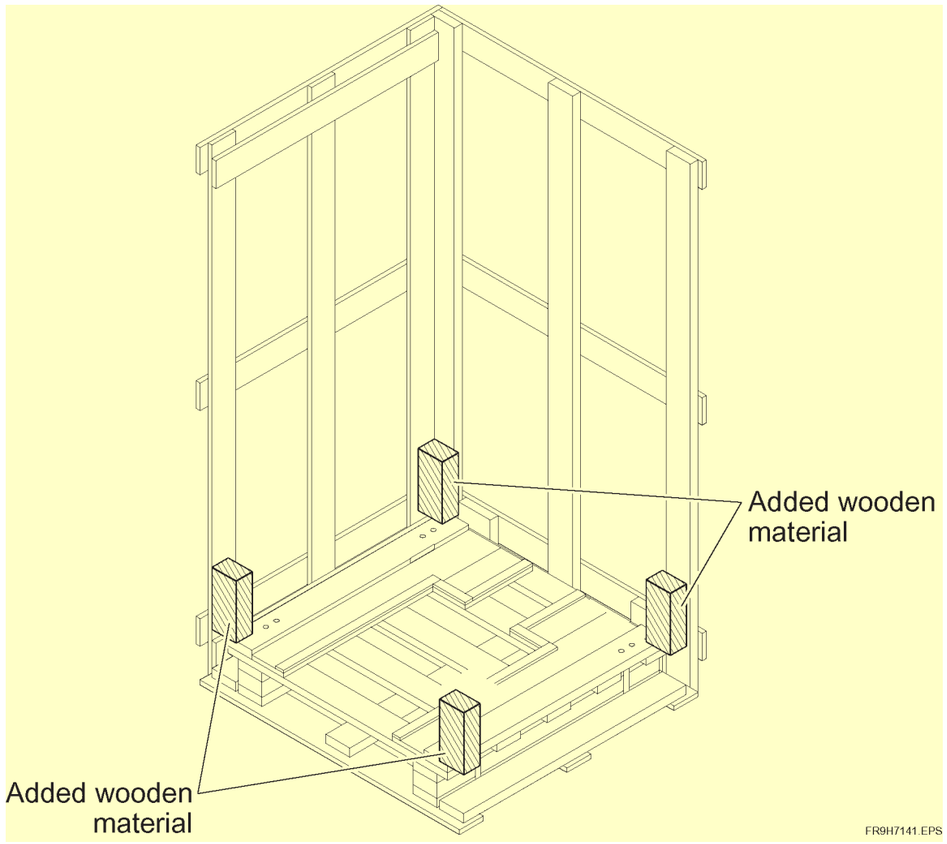


Since no cable member is present on the side into which the lift is to be inserted, the cable member is not cut.

FR9H7140.EPS

3. Addition of Members into the Crate

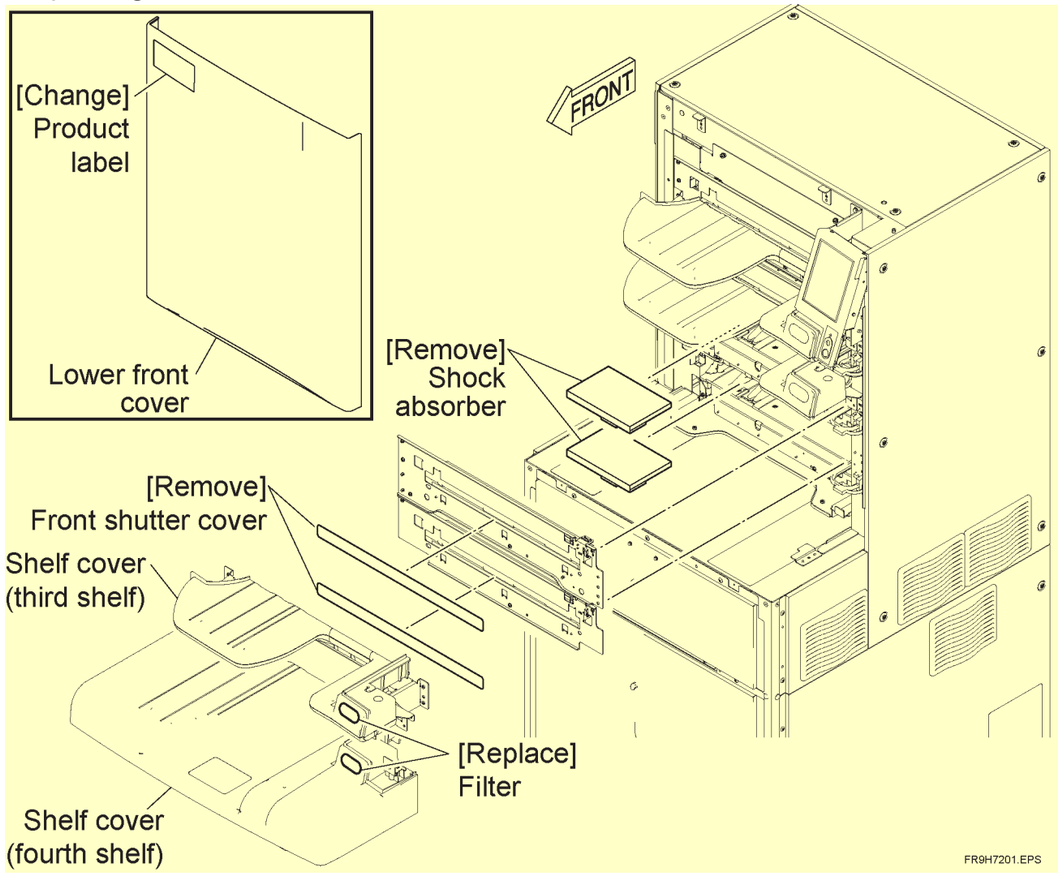
Wooden materials are added to the four corners inside the crate, so as to prevent the outer crate from separating from the carrier pallet when the machine is lifted together with the crate by the lift. The locations where the wooden materials are added are as shown below.



Appendix 6. Procedures for Upgrading the XG2000 to the XG5000

The procedures are used in upgrading the XG2000 to the XG5000. The following operations are required:

- Removing the front shutter covers which close the cassette inserting entrances on the third and fourth shelves.
- Replacing the filters on the shelf covers (on the third and fourth shelves).
- Removing the shock absorbers
- Replacing the product label
- Updating the RU software version



1. Removal and Replacement of Components

■ Removal and Replacement Procedures

1. Remove the covers.
- Upper front cover
- Lower front cover

☞ {MC:3.1_Covers}

2. Remove the shelf cover (on the fourth shelf) and the front shutter cover.

☞ {MC:24.2_Front Shutter Cover (Fourth Shelf)}

3. Remove the shutter assembly from the fourth shelf.

☞ {MC:5.5_Shutter Assembly (for the Fourth Shelf)}

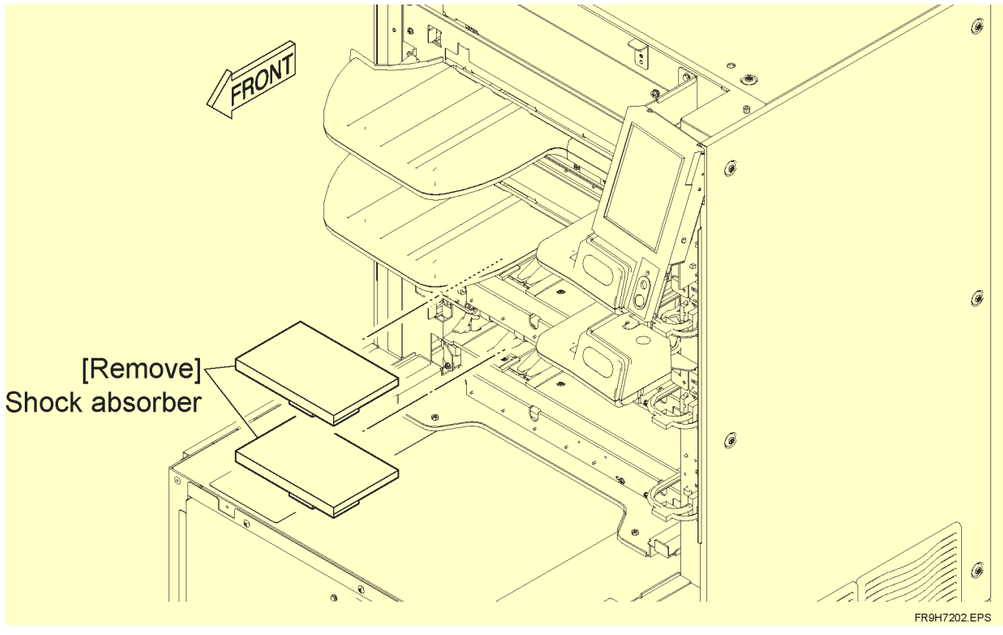
4. Remove the shutter assembly from the third shelf.

☞ {MC:5.4_Shutter Assemblies (for the Second and Third Shelves)}

5. Remove the shelf cover (on the third shelf) and the front shutter cover (on the third shelf).

☞ {MC:24.1_Front Shutter Cover (Third Shelf)}

6. Remove the shock absorbers.



7. **Replace the filter on the shelf cover (on the third shelf) with the filter indicating the shelf No.**

   ☞ {MC:5.8_LEDs (for the First, Second, and Third Shelves)}

8. **Reverse the procedures for filter replacement to assemble the shutter assembly on the third shelf.**

   ☞ {MC:5.8_LEDs (for the First, Second, and Third Shelves)}

9. **Replace the filter on the shelf cover (on the fourth shelf) with the filter indicating the shelf No.**

   ☞ {MC:5.9_LED (for the Fourth Shelf)}

10. **Reinstall the shutter assembly on the third shelf.**

    ☞ {MC:5.4_Shutter Assemblies (for the Second and Third Shelves)}

11. **Reinstall the shutter assembly on the fourth shelf.**

    ☞ {MC:5.5_Shutter Assembly (for the Fourth Shelf)}

12. **Reinstall the shelf cover.**

    ☞ {MC:3.3_Shelf Cover (for the Fourth Shelf)}

13. **Replace the product label applied on the lower front cover with the XG5000 label.**

14. **Reinstall the covers.**
    - Upper front cover
    - Lower front cover

    ☞ {MC:3.1_Covers}

2. Updating the RU Software Version

Update the RU software version, and install the RU software for the XG5000. Refer to the Checks, Replacement and Adjustment of Parts (MC), “15. Updating Software Versions” for the updating procedures.

☞ **{MC:15._Updating Software Versions}**

◆ ***NOTE*** ◆

When the image/conveyance is to be checked after updating the RU software version, insert the cassettes into the third and fourth shelves, and check to make sure that the machine normally works.

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